

Labcorp® Carrier Screening Expanded Offering Detection Rates and Residual Risks

Data as of January 2026

This comprehensive document includes all genes available through Labcorp® Carrier Screening panels; risks for any individual are specific to the genes included in the ordered panel.

The table below displays residual risks after a negative result for each gene and its corresponding disorder. It also includes the risk of an affected fetus when one partner is a carrier and the other is negative. The values provided assume a negative family history and the absence of symptoms for each disorder. For genes associated with both dominant and recessive inheritance, the numbers in this table apply to the recessive condition(s) associated with the gene, unless otherwise noted. Residual risk values are provided for disorders when carrier frequency is greater than 1 in 500. For disorders with carrier frequency equal to or less than 1 in 500, the residual risk is substantially reduced. Carrier frequencies are derived from population databases including gnomAD (<https://gnomad.broadinstitute.org>) and ClinVar (<https://www.ncbi.nlm.nih.gov/clinvar>), or published literature, and detection rates are estimated based on Labcorp data.

For unknown or mixed ethnicity, consider using the ethnic background with the most conservative risk estimates.

The information in this document includes summary information and estimates. It is provided for general information purposes only, and is not intended as a substitute for professional medical judgment or medical advice.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
AAAS	Triple A syndrome	Pan-ethnic	99	1/499	1/49800	1/199200
		African American/Black	98	1/290	1/14500	1/58000
		Latino/Admixed American	98	1/458	1/22900	1/91600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/453	1/45200	1/180800
ABCA12	Autosomal recessive congenital ichthyosis (ABCA12-related)	Pan-ethnic	99	1/443	1/44200	1/176800
		African American/Black	98	1/374	1/18700	1/74800
		Latino/Admixed American	99	1/431	1/43000	1/172000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	1/427	1/21300	1/85200
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	1/485	1/24200	1/96800
		South Asian	97	1/149	1/4900	1/19600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
ABCA3	ABCA3-related conditions	Pan-ethnic	99	1/92	1/9100	1/36400
		African American/Black	99	1/349	1/34800	1/139200
		Latino/Admixed American	99	1/199	1/19800	1/79200
		Ashkenazi Jewish	97	1/476	1/15800	1/63200
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/407	1/40600	1/162400
		Non-Finnish European/White	99	1/76	1/7500	1/30000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ABCA4	ABCA4-related conditions	Pan-ethnic	90	1/27	1/261	1/1044
		African American/Black	90	1/11	1/100	1/400
		Latino/Admixed American	90	1/28	1/300	1/1200
		Ashkenazi Jewish	90	1/14	1/100	1/400
		East Asian	90	1/42	1/400	1/1600
		Finnish	90	1/39	1/400	1/1600
		Non-Finnish European/White	90	1/25	1/200	1/800
		South Asian	90	1/36	1/400	1/1600
ABCB11	ABCB11-related conditions	Pan-ethnic	99	1/383	1/38200	1/152800
		African American/Black	99	1/366	1/36500	1/146000
		Latino/Admixed American	99	1/307	1/30600	1/122400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/203	1/20200	1/80800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/371	1/37000	1/148000
		South Asian	99	1/489	1/48800	1/195200
ABCB4	ABCB4-related conditions	Pan-ethnic	99	1/230	1/22900	1/91600
		African American/Black	99	1/361	1/36000	1/144000
		Latino/Admixed American	99	1/318	1/31700	1/126800
		Ashkenazi Jewish	99	1/429	1/42800	1/171200
		East Asian	99	1/315	1/31400	1/125600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/224	1/22300	1/89200
		South Asian	99	1/220	1/21900	1/87600
ABCC2	Dubin-Johnson syndrome	Pan-ethnic	99	1/197	1/19600	1/78400
		African American/Black	99	1/182	1/18100	1/72400
		Latino/Admixed American	99	1/144	1/14300	1/57200
		Ashkenazi Jewish	99	1/335	1/33400	1/133600
		East Asian	99	1/78	1/7700	1/30800
		Finnish	99	1/55	1/5400	1/21600
		Non-Finnish European/White	99	1/252	1/25100	1/100400
		South Asian	99	1/120	1/11900	1/47600
ABCC8	ABCC8-related conditions	Pan-ethnic	99	1/370	1/36900	1/147600
		African American/Black	99	1/468	1/46700	1/186800
		Latino/Admixed American	99	1/370	1/36900	1/147600
		Ashkenazi Jewish	99	1/63	1/6200	1/24800
		East Asian	99	1/266	1/26500	1/106000
		Finnish	99	1/239	1/23800	1/95200
		Non-Finnish European/White	99	1/427	1/42600	1/170400
		South Asian	99	1/478	1/47700	1/190800
ABCD1	X-linked adrenoleukodystrophy	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
ABCD4	Cobalamin J deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ACAD9	Mitochondrial complex I deficiency 20/ ACAD9 deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	97	1/324	1/10800	1/43200
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ACADM	Medium-chain acyl-CoA dehydrogenase deficiency	Pan-ethnic	99	1/57	1/5600	1/22400
		African American/Black	99	1/169	1/16800	1/67200
		Latino/Admixed American	99	1/68	1/6700	1/26800
		Ashkenazi Jewish	99	1/116	1/11500	1/46000
		East Asian	99	1/251	1/25000	1/100000
		Finnish	99	1/321	1/32000	1/128000
		Non-Finnish European/White	99	1/49	1/4800	1/19200
		South Asian	99	1/193	1/19200	1/76800
ACADS	Short-chain acyl-CoA dehydrogenase deficiency	Pan-ethnic	99	1/226	1/22500	1/90000
		African American/Black	99	1/56	1/5500	1/22000
		Latino/Admixed American	99	1/282	1/28100	1/112400
		Ashkenazi Jewish	99	1/27	1/2600	1/10400
		East Asian	99	1/152	1/15100	1/60400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/304	1/30300	1/121200
		South Asian	99	1/235	1/23400	1/93600
ACADSB	Short/branched-chain acyl-CoA dehydrogenase deficiency	Pan-ethnic	99	1/257	1/25600	1/102400
		African American/Black	97	1/219	1/7300	1/29200
		Latino/Admixed American	99	1/250	1/24900	1/99600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/171	1/17000	1/68000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/265	1/26400	1/105600
		South Asian	99	1/143	1/14200	1/56800
ACADVL	Very long-chain acyl-CoA dehydrogenase deficiency	Pan-ethnic	99	1/137	1/13600	1/54400
		African American/Black	99	1/213	1/21200	1/84800
		Latino/Admixed American	99	1/164	1/16300	1/65200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/168	1/16700	1/66800
		Finnish	99	1/266	1/26500	1/106000
		Non-Finnish European/White	99	1/122	1/12100	1/48400
		South Asian	99	1/299	1/29800	1/119200
ACAT1	Beta-ketothiolase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/209	1/20800	1/83200
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	1/440	1/22000	1/88000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
ACOX1	ACOX1-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
ACSF3	Combined malonic and methylmalonic aciduria	Pan-ethnic	99	1/76	1/7500	1/30000
		African American/Black	99	1/228	1/22700	1/90800
		Latino/Admixed American	99	1/198	1/19700	1/78800
		Ashkenazi Jewish	99	1/417	1/41600	1/166400
		East Asian	99	1/114	1/11300	1/45200
		Finnish	99	1/351	1/35000	1/140000
		Non-Finnish European/White	99	1/65	1/6400	1/25600
		South Asian	99	1/233	1/23200	1/92800
ADA	Adenosine deaminase deficiency	Pan-ethnic	92	≤ 1/500	≤ 1/6200	≤ 1/24800
		African American/Black	92	1/331	1/4100	1/16400
		Latino/Admixed American	92	1/316	1/3900	1/15600
		Ashkenazi Jewish	92	≤ 1/500	≤ 1/6200	≤ 1/24800
		East Asian	92	≤ 1/500	≤ 1/6200	≤ 1/24800
		Finnish	92	≤ 1/500	≤ 1/6200	≤ 1/24800
		Non-Finnish European/White	92	≤ 1/500	≤ 1/6200	≤ 1/24800
		South Asian	92	≤ 1/500	≤ 1/6200	≤ 1/24800
ADAMTS2	Ehlers-Danlos syndrome, dermatosparaxis type	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/154	1/15300	1/61200
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ADAMTSL4	Isolated ectopia lentis	Pan-ethnic	99	1/171	1/17000	1/68000
		African American/Black	99	1/227	1/22600	1/90400
		Latino/Admixed American	99	1/296	1/29500	1/118000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/440	1/43900	1/175600
		Finnish	99	1/173	1/17200	1/68800
		Non-Finnish European/White	99	1/156	1/15500	1/62000
		South Asian	99	1/281	1/28000	1/112000
ADGRG1	Polymicrogyria (ADGRG1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
ADGRV1	ADGRV1-related conditions	Pan-ethnic	99	1/251	1/25000	1/100000
		African American/Black	98	1/189	1/9400	1/37600
		Latino/Admixed American	98	1/291	1/14500	1/58000
		Ashkenazi Jewish	99	1/280	1/27900	1/111600
		East Asian	98	1/222	1/11100	1/44400
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	1/250	1/12500	1/50000
		South Asian	99	1/136	1/13500	1/54000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
ADK	Hypermethioninemia due to adenosine kinase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
AFF2	AFF2-related intellectual developmental disorder	Pan-ethnic	25	N/A*	Reduced	Reduced
		African American/Black	25	N/A*	Reduced	Reduced
		Latino/Admixed American	25	N/A*	Reduced	Reduced
		Ashkenazi Jewish	25	N/A*	Reduced	Reduced
		East Asian	25	N/A*	Reduced	Reduced
		Finnish	25	N/A*	Reduced	Reduced
		Non-Finnish European/White	25	N/A*	Reduced	Reduced
		South Asian	25	N/A*	Reduced	Reduced
AGA	Aspartylglucosaminuria	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	1/63	1/6200	1/24800
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
AGL	Glycogen storage disease type III	Pan-ethnic	95	1/323	1/6400	1/25600
		African American/Black	95	1/232	1/4600	1/18400
		Latino/Admixed American	95	1/307	1/6100	1/24400
		Ashkenazi Jewish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		East Asian	95	1/357	1/7100	1/28400
		Finnish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Non-Finnish European/White	95	1/315	1/6300	1/25200
		South Asian	95	1/385	1/7700	1/30800
AGPAT2	Congenital generalized lipodystrophy, type 1	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/219	1/21800	1/87200
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
AGPS	Rhizomelic chondrodysplasia punctata type 3	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
AGXT	Primary hyperoxaluria type 1	Pan-ethnic	99	1/229	1/22800	1/91200
		African American/Black	99	1/354	1/35300	1/141200
		Latino/Admixed American	99	1/362	1/36100	1/144400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/213	1/21200	1/84800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/215	1/21400	1/85600
		South Asian	99	1/207	1/20600	1/82400

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
AHCY	Hypermethioninemia with s-adenosylhomocysteine hydrolase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
AHI1	AHI1-related conditions	Pan-ethnic	99	1/344	1/34300	1/137200
		African American/Black	98	1/410	1/20500	1/82000
		Latino/Admixed American	99	1/298	1/29700	1/118800
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	1/281	1/14000	1/56000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/326	1/32500	1/130000
		South Asian	97	1/259	1/8600	1/34400
AICDA	Hyper-IgM immunodeficiency, type 2	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/269	1/26800	1/107200
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
AIMP1	Hypomyelinating leukodystrophy-3	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
AIPL1	AIPL1-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
AIRE	Autoimmune polyendocrinopathy with candidiasis and ectodermal dysplasia	Pan-ethnic	99	1/222	1/22100	1/88400
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	97	1/461	1/15300	1/61200
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	1/479	1/47800	1/191200
		Finnish	99	1/96	1/9500	1/38000
		Non-Finnish European/White	98	1/207	1/10300	1/41200
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
AK2	Reticular dysgenesis	Pan-ethnic	70	≤ 1/500	≤ 1/1664	≤ 1/6656
		African American/Black	70	≤ 1/500	≤ 1/1664	≤ 1/6656
		Latino/Admixed American	70	≤ 1/500	≤ 1/1664	≤ 1/6656
		Ashkenazi Jewish	70	≤ 1/500	≤ 1/1664	≤ 1/6656
		East Asian	70	≤ 1/500	≤ 1/1664	≤ 1/6656
		Finnish	70	≤ 1/500	≤ 1/1664	≤ 1/6656
		Non-Finnish European/White	70	≤ 1/500	≤ 1/1664	≤ 1/6656
		South Asian	70	≤ 1/500	≤ 1/1664	≤ 1/6656

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
AKR1D1	Congenital bile acid synthesis defect type 2	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ALDH3A2	Sjögren-Larsson syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
ALDH4A1	Hyperprolinemia type 2	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/479	1/47800	1/191200
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ALDH7A1	Pyridoxine-dependent epilepsy (ALDH7A1-related)	Pan-ethnic	99	1/297	1/29600	1/118400
		African American/Black	99	1/493	1/49200	1/196800
		Latino/Admixed American	99	1/351	1/35000	1/140000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/317	1/31600	1/126400
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/273	1/27200	1/108800
		South Asian	99	1/272	1/27100	1/108400
ALDOB	Hereditary fructose intolerance	Pan-ethnic	99	1/90	1/8900	1/35600
		African American/Black	99	1/291	1/29000	1/116000
		Latino/Admixed American	99	1/169	1/16800	1/67200
		Ashkenazi Jewish	99	1/143	1/14200	1/56800
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	1/82	1/8100	1/32400
		Non-Finnish European/White	99	1/80	1/7900	1/31600
		South Asian	99	1/403	1/40200	1/160800
ALG1	Congenital disorder of glycosylation type Ik	Pan-ethnic	99	1/338	1/33700	1/134800
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	1/169	1/8400	1/33600
		East Asian	99	1/445	1/44400	1/177600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/299	1/29800	1/119200
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ALG12	Congenital disorder of glycosylation type Ig	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
ALG13	ALG13-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
ALG3	Congenital disorder of glycosylation type Id	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ALG6	Congenital disorder of glycosylation type Ic	Pan-ethnic	99	1/366	1/36500	1/146000
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	1/240	1/12000	1/48000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/330	1/32900	1/131600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
ALMS1	Alström syndrome	Pan-ethnic	99	1/182	1/18100	1/72400
		African American/Black	98	1/186	1/9300	1/37200
		Latino/Admixed American	98	1/261	1/13000	1/52000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	1/101	1/5000	1/20000
		Finnish	99	1/443	1/44200	1/176800
		Non-Finnish European/White	98	1/176	1/8800	1/35200
		South Asian	98	1/136	1/6800	1/27200
ALOX12B	Autosomal recessive congenital ichthyosis (ALOX12B-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/460	1/45900	1/183600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
ALOXE3	Autosomal recessive congenital ichthyosis (ALOXE3-related)	Pan-ethnic	99	1/208	1/20700	1/82800
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/298	1/29700	1/118800
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/177	1/17600	1/70400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ALPL	Hypophosphatasia	Pan-ethnic	95	1/149	1/3000	1/12000
		African American/Black	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Latino/Admixed American	95	1/380	1/7600	1/30400
		Ashkenazi Jewish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		East Asian	95	1/93	1/1800	1/7200
		Finnish	95	1/30	1/600	1/2400
		Non-Finnish European/White	95	1/162	1/3200	1/12800
		South Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
AMH	Persistent Müllerian duct syndrome (AMH-related)	Pan-ethnic	99	1/433	1/43200	1/172800
		African American/Black	99	1/337	1/33600	1/134400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/422	1/42100	1/168400
		Finnish	99	1/280	1/27900	1/111600
		Non-Finnish European/White	99	1/438	1/43700	1/174800
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
AMHR2	Persistent Müllerian duct syndrome (AMHR2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/295	1/29400	1/117600
		Latino/Admixed American	99	1/458	1/45700	1/182800
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/427	1/42600	1/170400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
AMN	Imerslund-Gräsbeck syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
AMPD2	Pontocerebellar hypoplasia type 9	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
AMT	Glycine encephalopathy (AMT-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	1/457	1/22800	1/91200
ANO10	Spinocerebellar ataxia (ANO10-related)	Pan-ethnic	99	1/359	1/35800	1/143200
		African American/Black	98	1/490	1/24500	1/98000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	1/483	1/24100	1/96400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	1/329	1/10900	1/43600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
ANOS	ANOS-related conditions	Pan-ethnic	99	1/94	1/9300	1/37200
		African American/Black	99	1/318	1/31700	1/126800
		Latino/Admixed American	99	1/95	1/9400	1/37600
		Ashkenazi Jewish	99	1/175	1/17400	1/69600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/70	1/6900	1/27600
		Non-Finnish European/White	99	1/85	1/8400	1/33600
		South Asian	99	1/328	1/32700	1/130800

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
ANTXR2	Hyaline fibromatosis syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	1/379	1/37800	1/151200
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	1/404	1/13400	1/53600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		South Asian	99	1/458	1/45700	1/182800
AP1S1	MEDNIK syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
AP1S2	Pettigrew syndrome	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
AP3B1	Hermansky-Pudlak syndrome type 2	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
AQP2	Nephrogenic diabetes insipidus (AQP2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
AR	Androgen insensitivity syndrome	Pan-ethnic	95	N/A*	Reduced	Reduced
		African American/Black	95	N/A*	Reduced	Reduced
		Latino/Admixed American	95	N/A*	Reduced	Reduced
		Ashkenazi Jewish	95	N/A*	Reduced	Reduced
		East Asian	95	N/A*	Reduced	Reduced
		Finnish	95	N/A*	Reduced	Reduced
		Non-Finnish European/White	95	N/A*	Reduced	Reduced
		South Asian	95	N/A*	Reduced	Reduced
ARG1	Arginase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/361	1/36000	1/144000
		Ashkenazi Jewish	99	1/441	1/44000	1/176000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
ARL13B	Joubert syndrome and related disorders (ARL13B-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
ARL6	ARL6-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ARSA	Metachromatic leukodystrophy (ARSA-related)	Pan-ethnic	95	1/171	1/3400	1/13600
		African American/Black	95	1/236	1/4700	1/18800
		Latino/Admixed American	95	1/343	1/6800	1/27200
		Ashkenazi Jewish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		East Asian	95	1/295	1/5900	1/23600
		Finnish	95	1/196	1/3900	1/15600
		Non-Finnish European/White	95	1/158	1/3100	1/12400
		South Asian	95	1/261	1/5200	1/20800
ARSB	Mucopolysaccharidosis type VI	Pan-ethnic	99	1/431	1/43000	1/172000
		African American/Black	98	1/480	1/24000	1/96000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/409	1/40800	1/163200
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ARSL / ARSE	X-linked chondrodysplasia punctata type 1	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
ARX	ARX-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
ASL	Argininosuccinate lyase deficiency	Pan-ethnic	90	1/129	1/1300	1/5200
		African American/Black	90	1/285	1/2800	1/11200
		Latino/Admixed American	90	1/365	1/3600	1/14400
		Ashkenazi Jewish	90	1/418	1/4200	1/16800
		East Asian	90	1/413	1/4100	1/16400
		Finnish	90	1/93	1/900	1/3600
		Non-Finnish European/White	90	1/114	1/1100	1/4400
		South Asian	90	1/317	1/3200	1/12800

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
ASNS	Asparagine synthetase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
ASPA	Canavan disease	Pan-ethnic	99	1/497	1/49600	1/198400
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/47	1/4600	1/18400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/249	1/24800	1/99200
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ASS1	Citrullinemia type 1	Pan-ethnic	96	1/294	1/7300	1/29200
		African American/Black	96	1/379	1/9500	1/38000
		Latino/Admixed American	96	1/291	1/7300	1/29200
		Ashkenazi Jewish	96	≤ 1/500	≤ 1/12500	≤ 1/50000
		East Asian	96	1/298	1/7400	1/29600
		Finnish	96	≤ 1/500	≤ 1/12500	≤ 1/50000
		Non-Finnish European/White	96	1/282	1/7000	1/28000
		South Asian	96	1/195	1/4900	1/19600
ATM	ATM-related conditions	Pan-ethnic	99	1/193	1/19200	1/76800
		African American/Black	98	1/200	1/10000	1/40000
		Latino/Admixed American	99	1/160	1/15900	1/63600
		Ashkenazi Jewish	97	1/378	1/12600	1/50400
		East Asian	98	1/240	1/12000	1/48000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	1/179	1/8900	1/35600
		South Asian	99	1/198	1/19700	1/78800
ATP13A2	ATP13A2-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	1/177	1/5900	1/23600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ATP6V0A2	Cutis laxa type 2A	Pan-ethnic	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		African American/Black	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Latino/Admixed American	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Ashkenazi Jewish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		East Asian	95	1/434	1/8700	1/34800
		Finnish	95	1/481	1/9600	1/38400
		Non-Finnish European/White	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		South Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
ATP6V0A4	Distal renal tubular acidosis with or without deafness (ATP6V0A4-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/248	1/24700	1/98800
		Ashkenazi Jewish	99	1/457	1/45600	1/182400
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
ATP6V1B1	Distal renal tubular acidosis with deafness (ATP6V1B1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ATP6V1E1	Cutis laxa type 2C	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
ATP7A	ATP7A-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	98	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
ATP7B	Wilson disease	Pan-ethnic	98	1/75	1/3700	1/14800
		African American/Black	99	1/157	1/15600	1/62400
		Latino/Admixed American	99	1/67	1/6600	1/26400
		Ashkenazi Jewish	99	1/46	1/4500	1/18000
		East Asian	99	1/34	1/3300	1/13200
		Finnish	99	1/216	1/21500	1/86000
		Non-Finnish European/White	99	1/75	1/7400	1/29600
		South Asian	99	1/82	1/8100	1/32400
ATP8B1	ATP8B1-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ATRX	Alpha-thalassemia X-linked intellectual disability syndrome	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	97	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
AVPR2	AVPR2-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
B9D1	Joubert syndrome and related disorders (B9D1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
B9D2	Joubert syndrome and related disorders (B9D2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	1/399	1/19900	1/79600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
BBS1	BBS1-related conditions	Pan-ethnic	99	1/152	1/15100	1/60400
		African American/Black	99	1/384	1/38300	1/153200
		Latino/Admixed American	99	1/229	1/22800	1/91200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/283	1/28200	1/112800
		Non-Finnish European/White	99	1/135	1/13400	1/53600
		South Asian	99	1/169	1/16800	1/67200
BBS10	Bardet-Biedl syndrome (BBS10-related)	Pan-ethnic	99	1/281	1/28000	1/112000
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	1/279	1/9300	1/37200
		East Asian	97	1/441	1/14700	1/58800
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	1/249	1/8300	1/33200
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
BBS12	Bardet-Biedl syndrome (BBS12-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
BBS2	BBS2-related conditions	Pan-ethnic	99	1/435	1/43400	1/173600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	1/129	1/12800	1/51200
		East Asian	99	1/326	1/32500	1/130000
		Finnish	99	1/496	1/49500	1/198000
		Non-Finnish European/White	99	1/456	1/45500	1/182000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
BBS4	BBS4-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
BBS5	BBS5-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
BBS7	Bardet-Biedl syndrome (BBS7-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
BBS9	Bardet-Biedl syndrome (BBS9-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	1/375	1/18700	1/74800
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	1/409	1/40800	1/163200
BCHE	Pseudocholinesterase deficiency	Pan-ethnic	99	1/24	1/2300	1/9200
		African American/Black	99	1/102	1/10100	1/40400
		Latino/Admixed American	99	1/41	1/4000	1/16000
		Ashkenazi Jewish	99	1/24	1/2300	1/9200
		East Asian	98	1/68	1/3400	1/13600
		Finnish	99	1/41	1/4000	1/16000
		Non-Finnish European/White	99	1/21	1/2000	1/8000
		South Asian	99	1/71	1/7000	1/28000
BCKDHA	Maple syrup urine disease type 1A	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
BCKDHB	Maple syrup urine disease type 1B	Pan-ethnic	99	1/474	1/47300	1/189200
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/333	1/33200	1/132800
		Ashkenazi Jewish	99	1/112	1/11100	1/44400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/176	1/17500	1/70000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
BCS1L	BCS1L-related conditions	Pan-ethnic	99	1/347	1/34600	1/138400
		African American/Black	99	1/486	1/48500	1/194000
		Latino/Admixed American	99	1/306	1/30500	1/122000
		Ashkenazi Jewish	99	1/221	1/22000	1/88000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	1/103	1/10200	1/40800
		Non-Finnish European/White	99	1/365	1/36400	1/145600
		South Asian	99	1/464	1/46300	1/185200

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
BLM	Bloom syndrome	Pan-ethnic	99	1/371	1/37000	1/148000
		African American/Black	98	1/388	1/19400	1/77600
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	1/314	1/15700	1/62800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/340	1/33900	1/135600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
BLOC1S3	Hermansky-Pudlak syndrome type 8	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
BLOC1S6	Hermansky-Pudlak syndrome type 9	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
BMP1	Osteogenesis imperfecta (BMP1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
BMPER	Diaphanospondylodysostosis	Pan-ethnic	99	1/491	1/49000	1/196000
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/337	1/33600	1/134400
		Ashkenazi Jewish	99	1/269	1/26800	1/107200
		East Asian	99	1/212	1/21100	1/84400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/256	1/25500	1/102000
BRIP1	BRIP1-related conditions	Pan-ethnic	99	1/428	1/42700	1/170800
		African American/Black	98	1/354	1/17700	1/70800
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	1/263	1/13100	1/52400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	1/404	1/20200	1/80800
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
BRWD3	X-linked intellectual disability (BRWD3-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
BSND	BSND-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
BTD	Biotinidase deficiency, profound and partial	Pan-ethnic	99	1/12	1/1100	1/4400
		African American/Black	99	1/50	1/4900	1/19600
		Latino/Admixed American	99	1/21	1/2000	1/8000
		Ashkenazi Jewish	99	1/16	1/1500	1/6000
		East Asian	99	1/317	1/31600	1/126400
		Finnish	99	1/10	1/900	1/3600
		Non-Finnish European/White	99	1/11	1/1000	1/4000
		South Asian	99	1/12	1/1100	1/4400
BTK	X-linked agammaglobulinemia	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
C19orf12	Mitochondrial membrane protein-associated neurodegeneration	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CAD	Developmental and epileptic encephalopathy (CAD-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/359	1/35800	1/143200
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	1/197	1/19600	1/78400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CANT1	Desbuquois dysplasia type 1	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/415	1/41400	1/165600
CAPN3	Limb-girdle muscular dystrophy (CAPN3-related)	Pan-ethnic	99	1/143	1/14200	1/56800
		African American/Black	99	1/195	1/19400	1/77600
		Latino/Admixed American	98	1/199	1/9900	1/39600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/130	1/12900	1/51600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/127	1/12600	1/50400
		South Asian	99	1/309	1/30800	1/123200

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
CASQ2	Catecholaminergic polymorphic ventricular tachycardia (CASQ2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/405	1/40400	1/161600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CASR	CASR-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CAVIN1 / PTRF	Congenital generalized lipodystrophy, type 4	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
CBS	Homocystinuria due to cystathionine beta-synthase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/423	1/42200	1/168800
		Latino/Admixed American	99	1/431	1/43000	1/172000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CC2D1A	Nonsyndromic intellectual disability (CC2D1A-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/214	1/21300	1/85200
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CC2D2A	CC2D2A-related conditions	Pan-ethnic	99	1/233	1/23200	1/92800
		African American/Black	99	1/238	1/23700	1/94800
		Latino/Admixed American	98	1/264	1/13200	1/52800
		Ashkenazi Jewish	98	1/168	1/8400	1/33600
		East Asian	98	1/266	1/13300	1/53200
		Finnish	99	1/149	1/14800	1/59200
		Non-Finnish European/White	98	1/230	1/11500	1/46000
		South Asian	99	1/254	1/25300	1/101200
CCDC39	Primary ciliary dyskinesia (CCDC39-related)	Pan-ethnic	99	1/291	1/29000	1/116000
		African American/Black	99	1/199	1/19800	1/79200
		Latino/Admixed American	99	1/331	1/33000	1/132000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/381	1/38000	1/152000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/369	1/36800	1/147200
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
CCDC8	3-M syndrome (CCDC8-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
CCDC88C	Congenital hydrocephalus-1	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
CCN6 / WISP3	Progressive pseudorheumatoid dysplasia	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CD247	Severe combined immunodeficiency due to CD3-zeta deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/489	1/48800	1/195200
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CD3D	Severe combined immunodeficiency due to CD3-delta deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CD3E	Severe combined immunodeficiency due to CD3-epsilon deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CD3G	Combined immunodeficiency due to CD3-gamma deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	1/376	1/12500	1/50000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
CD40	Hyper-IgM immunodeficiency (CD40-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CD40LG	X-linked hyper-IgM immunodeficiency	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
CD59	Hemolytic anemia, CD59-mediated	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CD8A	Combined immunodeficiency due to CD8 deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CDAN1	Congenital dyserythropoietic anemia type I (CDAN1-related)	Pan-ethnic	99	1/337	1/33600	1/134400
		African American/Black	99	1/395	1/39400	1/157600
		Latino/Admixed American	99	1/448	1/44700	1/178800
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/270	1/26900	1/107600
		Finnish	99	1/476	1/47500	1/190000
		Non-Finnish European/White	99	1/323	1/32200	1/128800
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CDCA7	Immunodeficiency-centromeric instability-facial anomalies syndrome 3	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
CDH23	CDH23-related conditions	Pan-ethnic	95	1/281	1/5600	1/22400
		African American/Black	95	1/229	1/4600	1/18400
		Latino/Admixed American	95	1/311	1/6200	1/24800
		Ashkenazi Jewish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		East Asian	95	1/112	1/2200	1/8800
		Finnish	95	1/474	1/9500	1/38000
		Non-Finnish European/White	95	1/295	1/5900	1/23600
		South Asian	95	1/198	1/3900	1/15600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
CEP104	Joubert syndrome and related disorders (CEP104-related)	Pan-ethnic	99	1/379	1/37800	1/151200
		African American/Black	98	1/203	1/10100	1/40400
		Latino/Admixed American	98	1/189	1/9400	1/37600
		Ashkenazi Jewish	97	1/256	1/8500	1/34000
		East Asian	99	1/332	1/33100	1/132400
		Finnish	99	1/225	1/22400	1/89600
		Non-Finnish European/White	99	1/419	1/41800	1/167200
		South Asian	98	1/252	1/12600	1/50400
CEP152	Seckel syndrome (CEP152-related)	Pan-ethnic	99	1/356	1/35500	1/142000
		African American/Black	99	1/224	1/22300	1/89200
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/338	1/33700	1/134800
		East Asian	99	1/207	1/20600	1/82400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/367	1/36600	1/146400
		South Asian	99	1/172	1/17100	1/68400
CEP290	CEP290-related conditions	Pan-ethnic	99	1/110	1/10900	1/43600
		African American/Black	99	1/94	1/9300	1/37200
		Latino/Admixed American	98	1/110	1/5500	1/22000
		Ashkenazi Jewish	99	1/191	1/19000	1/76000
		East Asian	99	1/87	1/8600	1/34400
		Finnish	98	1/212	1/10600	1/42400
		Non-Finnish European/White	98	1/103	1/5100	1/20400
		South Asian	98	1/86	1/4300	1/17200
CERKL	CERKL-related conditions	Pan-ethnic	99	1/343	1/34200	1/136800
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/348	1/34700	1/138800
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	1/51	1/5000	1/20000
		Non-Finnish European/White	99	1/426	1/42500	1/170000
		South Asian	99	1/245	1/24400	1/97600
CERS3	Autosomal recessive congenital ichthyosis (CERS3-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
CFAP418 / C8orf37	C8orf37-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CFTR	CFTR-related conditions	Pan-ethnic	99	1/23	1/2200	1/8800
		African American/Black	98	1/51	1/2500	1/10000
		Latino/Admixed American	98	1/41	1/2000	1/8000
		Ashkenazi Jewish	99	1/25	1/2400	1/9600
		East Asian	98	1/249	1/12400	1/49600
		Finnish	98	1/70	1/3500	1/14000
		Non-Finnish European/White	98	1/20	1/1000	1/4000
		South Asian	99	1/54	1/5300	1/21200

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
CHAT	Congenital myasthenic syndrome (CHAT-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/308	1/30700	1/122800
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
CHM	Choroideremia	Pan-ethnic	95	N/A*	Reduced	Reduced
		African American/Black	95	N/A*	Reduced	Reduced
		Latino/Admixed American	95	N/A*	Reduced	Reduced
		Ashkenazi Jewish	95	N/A*	Reduced	Reduced
		East Asian	95	N/A*	Reduced	Reduced
		Finnish	95	N/A*	Reduced	Reduced
		Non-Finnish European/White	95	N/A*	Reduced	Reduced
		South Asian	95	N/A*	Reduced	Reduced
CHMP1A	Pontocerebellar hypoplasia type 8	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
CHRNE	Congenital myasthenic syndrome (CHRNE-related)	Pan-ethnic	99	1/181	1/18000	1/72000
		African American/Black	98	1/381	1/19000	1/76000
		Latino/Admixed American	97	1/233	1/7700	1/30800
		Ashkenazi Jewish	97	1/152	1/5000	1/20000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	1/162	1/8100	1/32400
		South Asian	97	1/301	1/10000	1/40000
CHRNA3	Multiple pterygium syndrome	Pan-ethnic	99	1/301	1/30000	1/120000
		African American/Black	97	1/354	1/11800	1/47200
		Latino/Admixed American	97	1/481	1/16000	1/64000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	1/343	1/17100	1/68400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	97	1/271	1/9000	1/36000
		South Asian	98	1/460	1/23000	1/92000
CHST6	Macular corneal dystrophy	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/496	1/49500	1/198000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
CIB2	Nonsyndromic deafness (CIB2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
CIITA	Major histocompatibility complex class II deficiency (CIITA-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CLCF1	Cold-induced sweating syndrome type 2	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CLCN1	Myotonia congenita	Pan-ethnic	99	1/96	1/9500	1/38000
		African American/Black	99	1/241	1/24000	1/96000
		Latino/Admixed American	99	1/173	1/17200	1/68800
		Ashkenazi Jewish	99	1/151	1/15000	1/60000
		East Asian	99	1/275	1/27400	1/109600
		Finnish	99	1/25	1/2400	1/9600
		Non-Finnish European/White	99	1/97	1/9600	1/38400
		South Asian	99	1/347	1/34600	1/138400
CLCN5	Dent disease (CLCN5-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	97	N/A*	Reduced	Reduced
		East Asian	97	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
CLCNKB	CLCNKB-related conditions	Pan-ethnic	90	1/383	1/3821	1/15284
		African American/Black	90	1/296	1/3000	1/12000
		Latino/Admixed American	90	1/235	1/2300	1/9200
		Ashkenazi Jewish	90	1/94	1/900	1/3600
		East Asian	90	1/332	1/3300	1/13200
		Finnish	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		Non-Finnish European/White	90	1/475	1/4700	1/18800
		South Asian	90	1/400	1/4000	1/16000
CLN3	CLN3-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CLN5	Neuronal ceroid lipofuscinosis type 5	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
CLN6	Neuronal ceroid lipofuscinosis type 6	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	1/424	1/42300	1/169200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CLN8	Neuronal ceroid lipofuscinosis type 8	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/419	1/41800	1/167200
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CLP1	Pontocerebellar hypoplasia type 10	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
CLRN1	CLRN1-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/86	1/8500	1/34000
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	1/81	1/8000	1/32000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
CNGA1	Retinitis pigmentosa 49	Pan-ethnic	99	1/206	1/20500	1/82000
		African American/Black	98	1/332	1/16600	1/66400
		Latino/Admixed American	99	1/409	1/40800	1/163200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	1/262	1/8700	1/34800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/180	1/17900	1/71600
		South Asian	99	1/482	1/48100	1/192400
CNGA3	CNGA3-related conditions	Pan-ethnic	99	1/193	1/19200	1/76800
		African American/Black	99	1/182	1/18100	1/72400
		Latino/Admixed American	99	1/121	1/12000	1/48000
		Ashkenazi Jewish	99	1/111	1/11000	1/44000
		East Asian	99	1/249	1/24800	1/99200
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/205	1/20400	1/81600
		South Asian	99	1/106	1/10500	1/42000
CNGB1	Retinitis pigmentosa 45	Pan-ethnic	99	1/187	1/18600	1/74400
		African American/Black	99	1/99	1/9800	1/39200
		Latino/Admixed American	99	1/209	1/20800	1/83200
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/245	1/24400	1/97600
		Finnish	99	1/76	1/7500	1/30000
		Non-Finnish European/White	99	1/200	1/19900	1/79600
		South Asian	99	1/293	1/29200	1/116800

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
CNGB3	Achromatopsia (CNGB3-related)	Pan-ethnic	99	1/154	1/15300	1/61200
		African American/Black	98	1/389	1/19400	1/77600
		Latino/Admixed American	97	1/368	1/12200	1/48800
		Ashkenazi Jewish	99	1/287	1/28600	1/114400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	1/156	1/5200	1/20800
		Non-Finnish European/White	97	1/133	1/4400	1/17600
		South Asian	98	1/437	1/21800	1/87200
CNTNAP2	CNTNAP2-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
COA8 / APOPT1	Mitochondrial complex IV deficiency 17	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
COASY	COASY-related conditions	Pan-ethnic	99	1/313	1/31200	1/124800
		African American/Black	99	1/198	1/19700	1/78800
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	1/294	1/9800	1/39200
		South Asian	99	1/330	1/32900	1/131600
COL11A2	COL11A2-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/351	1/35000	1/140000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
COL17A1	COL17A1-related conditions	Pan-ethnic	99	1/390	1/38900	1/155600
		African American/Black	99	1/131	1/13000	1/52000
		Latino/Admixed American	99	1/307	1/30600	1/122400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/377	1/37600	1/150400
		Non-Finnish European/White	99	1/398	1/39700	1/158800
		South Asian	99	1/332	1/33100	1/132400
COL27A1	Steel syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/329	1/32800	1/131200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
COL4A3	Alport syndrome (COL4A3-related)	Pan-ethnic	99	1/213	1/21200	1/84800
		African American/Black	99	1/250	1/24900	1/99600
		Latino/Admixed American	99	1/185	1/18400	1/73600
		Ashkenazi Jewish	99	1/302	1/30100	1/120400
		East Asian	99	1/171	1/17000	1/68000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/200	1/19900	1/79600
		South Asian	99	1/263	1/26200	1/104800
COL4A4	Alport syndrome (COL4A4-related)	Pan-ethnic	99	1/306	1/30500	1/122000
		African American/Black	98	1/263	1/13100	1/52400
		Latino/Admixed American	99	1/315	1/31400	1/125600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	1/197	1/9800	1/39200
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/319	1/31800	1/127200
		South Asian	99	1/281	1/28000	1/112000
COL4A5	Alport syndrome (COL4A5-related)	Pan-ethnic	98	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	97	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
COL7A1	Dystrophic epidermolysis bullosa	Pan-ethnic	97	1/170	1/5634	1/22536
		African American/Black	99	1/238	1/23700	1/94800
		Latino/Admixed American	99	1/138	1/13700	1/54800
		Ashkenazi Jewish	98	1/278	1/13900	1/55600
		East Asian	98	1/161	1/8000	1/32000
		Finnish	99	1/322	1/32100	1/128400
		Non-Finnish European/White	99	1/173	1/17200	1/68800
		South Asian	99	1/83	1/8200	1/32800
COLQ	Congenital myasthenic syndrome (COLQ-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	1/473	1/47200	1/188800
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
COQ4	Primary coenzyme Q10 deficiency 7	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/170	1/16900	1/67600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/364	1/36300	1/145200
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CORO1A	Severe combined immunodeficiency due to coronin-1A deficiency	Pan-ethnic	93	≤ 1/500	≤ 1/7129	≤ 1/28516
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
COX10	Mitochondrial complex IV deficiency 3	Pan-ethnic	82	≤ 1/500	≤ 1/2773	≤ 1/11092
		African American/Black	82	≤ 1/500	≤ 1/2773	≤ 1/11092
		Latino/Admixed American	82	≤ 1/500	≤ 1/2773	≤ 1/11092
		Ashkenazi Jewish	82	≤ 1/500	≤ 1/2773	≤ 1/11092
		East Asian	82	≤ 1/500	≤ 1/2773	≤ 1/11092
		Finnish	82	≤ 1/500	≤ 1/2773	≤ 1/11092
		Non-Finnish European/White	82	≤ 1/500	≤ 1/2773	≤ 1/11092
		South Asian	82	≤ 1/500	≤ 1/2773	≤ 1/11092
COX15	Mitochondrial complex IV deficiency 6	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
COX20	Mitochondrial complex IV deficiency 11	Pan-ethnic	99	1/436	1/43500	1/174000
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/376	1/37500	1/150000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
COX6B1	Mitochondrial complex IV deficiency 7	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CP	Aceruloplasminemia	Pan-ethnic	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		African American/Black	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		Latino/Admixed American	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		Ashkenazi Jewish	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		East Asian	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		Finnish	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		Non-Finnish European/White	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		South Asian	94	≤ 1/500	≤ 1/8300	≤ 1/33200
CPLANE1	Joubert syndrome and related disorders (CPLANE1-related)	Pan-ethnic	99	1/179	1/17800	1/71200
		African American/Black	99	1/137	1/13600	1/54400
		Latino/Admixed American	98	1/249	1/12400	1/49600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/164	1/16300	1/65200
		Finnish	97	1/438	1/14600	1/58400
		Non-Finnish European/White	98	1/171	1/8500	1/34000
		South Asian	98	1/209	1/10400	1/41600
CPS1	Carbamoyl phosphate synthetase I deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	1/304	1/15200	1/60800
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
CPT1A	Carnitine palmitoyltransferase I deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/345	1/34400	1/137600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/247	1/24600	1/98400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CPT2	Carnitine palmitoyltransferase II deficiency	Pan-ethnic	99	1/178	1/17700	1/70800
		African American/Black	99	1/257	1/25600	1/102400
		Latino/Admixed American	99	1/228	1/22700	1/90800
		Ashkenazi Jewish	99	1/35	1/3400	1/13600
		East Asian	99	1/254	1/25300	1/101200
		Finnish	99	1/190	1/18900	1/75600
		Non-Finnish European/White	99	1/178	1/17700	1/70800
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CRADD	Thin lissencephaly and intellectual disability	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/85	1/8400	1/33600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CRB1	CRB1-related conditions	Pan-ethnic	99	1/152	1/15100	1/60400
		African American/Black	99	1/98	1/9700	1/38800
		Latino/Admixed American	99	1/204	1/20300	1/81200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/237	1/23600	1/94400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/139	1/13800	1/55200
		South Asian	99	1/353	1/35200	1/140800
CRLF1	Cold-induced sweating syndrome type 1	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
CRTAP	Osteogenesis imperfecta (CRTAP-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/470	1/46900	1/187600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	1/368	1/18400	1/73600
CTC1	Cerebroretinal microangiopathy with calcifications and cysts type 1	Pan-ethnic	99	1/271	1/27000	1/108000
		African American/Black	99	1/421	1/42000	1/168000
		Latino/Admixed American	98	1/202	1/10100	1/40400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/307	1/30600	1/122400
		Finnish	97	1/60	1/2000	1/8000
		Non-Finnish European/White	98	1/319	1/15900	1/63600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
CTNS	Cystinosis	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
CTSA	Galactosialidosis	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	1/126	1/4200	1/16800
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CTSC	CTSC-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CTSD	Neuronal ceroid lipofuscinosis type 10	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CTSF	CTSF-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/378	1/37700	1/150800
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/468	1/46700	1/186800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
CTSK	Pycnodysostosis	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CUL4B	Cabezas type X-linked syndromic intellectual disability	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
CUL7	3-M syndrome (CUL7-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/344	1/34300	1/137200
		Latino/Admixed American	99	1/467	1/46600	1/186400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/490	1/48900	1/195600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
CWC27	Retinitis pigmentosa with or without skeletal anomalies	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CYBA	Chronic granulomatous disease (CYBA-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	1/466	1/46500	1/186000
		Finnish	99	1/467	1/46600	1/186400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CYBB	Chronic granulomatous disease (CYBB-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	97	N/A*	Reduced	Reduced
		Ashkenazi Jewish	97	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
CYP11A1	Congenital adrenal insufficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CYP11B1	CYP11B1-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/277	1/27600	1/110400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/236	1/23500	1/94000
CYP11B2	Aldosterone synthase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
CYP17A1	CYP17A1-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	1/329	1/16400	1/65600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
CYP19A1	Aromatase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
CYP11B1	CYP11B1-related conditions	Pan-ethnic	99	1/231	1/23000	1/92000
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	1/171	1/8500	1/34000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/203	1/20200	1/80800
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	1/214	1/21300	1/85200
		South Asian	99	1/299	1/29800	1/119200
CYP21A2	Congenital adrenal hyperplasia due to 21-hydroxylase deficiency	Pan-ethnic	92	1/61	1/751	1/3004
		Ashkenazi Jewish	90	1/9	1/100	1/400
CYP27A1	Cerebrotendinous xanthomatosis	Pan-ethnic	98	1/322	1/16050	1/64200
		African American/Black	99	1/298	1/29700	1/118800
		Latino/Admixed American	99	1/281	1/28000	1/112000
		Ashkenazi Jewish	99	1/302	1/30100	1/120400
		East Asian	99	1/146	1/14500	1/58000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/333	1/33200	1/132800
		South Asian	99	1/169	1/16800	1/67200
CYP27B1	Vitamin D-dependent rickets type 1A	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
CYP4F22	Autosomal recessive congenital ichthyosis (CYP4F22-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
CYP7B1	CYP7B1-related conditions	Pan-ethnic	99	1/367	1/36600	1/146400
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/266	1/26500	1/106000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/327	1/32600	1/130400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
DBT	Maple syrup urine disease type 2	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/429	1/42800	1/171200
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/468	1/46700	1/186800
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
DCAF17	Woodhouse-Sakati syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
DCLRE1C	Severe combined immunodeficiency due to DCLRE1C (Artemis) deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
DCX	DCX-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
DDB2	Xeroderma pigmentosum complementation group E	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
DDC	Aromatic L-amino acid decarboxylase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/212	1/21100	1/84400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	1/457	1/45600	1/182400

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
DDR2	DDR2-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
DDX11	Warsaw syndrome	Pan-ethnic	99	1/368	1/36700	1/146800
		African American/Black	99	1/378	1/37700	1/150800
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/65	1/6400	1/25600
		East Asian	99	1/264	1/26300	1/105200
		Finnish	99	1/213	1/21200	1/84800
		Non-Finnish European/White	99	1/483	1/48200	1/192800
		South Asian	99	1/355	1/35400	1/141600
DGAT1	Congenital chronic diarrhea (DGAT1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/112	1/11100	1/44400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/487	1/48600	1/194400
DGUOK	DGUOK-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
DHCR24	Desmosterolosis	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
DHCR7	Smith-Lemli-Opitz syndrome	Pan-ethnic	99	1/44	1/4300	1/17200
		African American/Black	99	1/170	1/16900	1/67600
		Latino/Admixed American	99	1/135	1/13400	1/53600
		Ashkenazi Jewish	99	1/39	1/3800	1/15200
		East Asian	99	1/190	1/18900	1/75600
		Finnish	99	1/173	1/17200	1/68800
		Non-Finnish European/White	99	1/39	1/3800	1/15200
		South Asian	99	1/398	1/39700	1/158800
DHDDS	DHDDS-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/91	1/9000	1/36000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
DKC1	Dyskeratosis congenita spectrum disorders (DKC1-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
DLAT	Pyruvate dehydrogenase complex deficiency (DLAT-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
DLD	Dihydrolipoamide dehydrogenase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	1/68	1/6700	1/26800
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
DLG3	X-linked intellectual disability (DLG3-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
DLL3	Spondylocostal dysostosis (DLL3-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/477	1/47600	1/190400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/449	1/44800	1/179200
DMD	DMD-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
DNAF19/CCDC103	Primary ciliary dyskinesia (CCDC103-related)	Pan-ethnic	99	1/241	1/24000	1/96000
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/476	1/47500	1/190000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/212	1/21100	1/84400
		South Asian	99	1/153	1/15200	1/60800

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
DNAH11	Primary ciliary dyskinesia (DNAH11-related)	Pan-ethnic	99	1/157	1/15600	1/62400
		African American/Black	99	1/132	1/13100	1/52400
		Latino/Admixed American	99	1/149	1/14800	1/59200
		Ashkenazi Jewish	99	1/145	1/14400	1/57600
		East Asian	99	1/133	1/13200	1/52800
		Finnish	99	1/227	1/22600	1/90400
		Non-Finnish European/White	99	1/159	1/15800	1/63200
		South Asian	99	1/99	1/9800	1/39200
DNAH5	Primary ciliary dyskinesia (DNAH5-related)	Pan-ethnic	99	1/144	1/14300	1/57200
		African American/Black	99	1/175	1/17400	1/69600
		Latino/Admixed American	99	1/158	1/15700	1/62800
		Ashkenazi Jewish	99	1/405	1/40400	1/161600
		East Asian	99	1/130	1/12900	1/51600
		Finnish	99	1/162	1/16100	1/64400
		Non-Finnish European/White	99	1/135	1/13400	1/53600
		South Asian	99	1/212	1/21100	1/84400
DNAI1	Primary ciliary dyskinesia (DNAI1-related)	Pan-ethnic	99	1/351	1/35000	1/140000
		African American/Black	99	1/416	1/41500	1/166000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/461	1/46000	1/184000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/294	1/29300	1/117200
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
DNAI2	Primary ciliary dyskinesia (DNAI2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/178	1/17700	1/70800
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
DNAL1	Primary ciliary dyskinesia (DNAL1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
DNMT3B	Immunodeficiency-centromeric instability-facial anomalies syndrome 1	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
DOCK8	DOCK8 deficiency	Pan-ethnic	99	1/421	1/42000	1/168000
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/422	1/42100	1/168400
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/411	1/41000	1/164000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
DOK7	DOK7-related conditions	Pan-ethnic	99	1/253	1/25200	1/100800
		African American/Black	97	1/245	1/8100	1/32400
		Latino/Admixed American	97	1/311	1/10300	1/41200
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	1/420	1/14000	1/56000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	1/232	1/7700	1/30800
		South Asian	98	1/342	1/17100	1/68400
DOLK	Congenital disorder of glycosylation type Im	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
DTNBP1	Hermansky-Pudlak syndrome type 7	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
DUOX2	DUOX2-related conditions	Pan-ethnic	91	1/80	1/878	1/3512
		African American/Black	91	1/99	1/1100	1/4400
		Latino/Admixed American	91	1/130	1/1400	1/5600
		Ashkenazi Jewish	91	≤ 1/500	≤ 1/5500	≤ 1/22000
		East Asian	91	1/24	1/300	1/1200
		Finnish	91	1/43	1/500	1/2000
		Non-Finnish European/White	91	1/77	1/800	1/3200
		South Asian	91	1/91	1/1000	1/4000
DUOXA2	Thyroid dysmorphogenesis (DUOXA2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/164	1/16300	1/65200
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/395	1/39400	1/157600
DYNC2H1	DYNC2H1-related conditions	Pan-ethnic	99	1/137	1/13600	1/54400
		African American/Black	99	1/121	1/12000	1/48000
		Latino/Admixed American	99	1/126	1/12500	1/50000
		Ashkenazi Jewish	99	1/147	1/14600	1/58400
		East Asian	99	1/128	1/12700	1/50800
		Finnish	99	1/497	1/49600	1/198400
		Non-Finnish European/White	99	1/133	1/13200	1/52800
		South Asian	99	1/138	1/13700	1/54800
DYSF	DYSF-related conditions	Pan-ethnic	99	1/215	1/21400	1/85600
		African American/Black	99	1/156	1/15500	1/62000
		Latino/Admixed American	99	1/140	1/13900	1/55600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/133	1/13200	1/52800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/218	1/21700	1/86800
		South Asian	99	1/219	1/21800	1/87200

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
EDA	EDA-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	97	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
EFEMP2	EFEMP2-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
EIF2AK3	Wolcott-Rallison syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
EIF2B1	Leukoencephalopathy with vanishing white matter (EIF2B1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		South Asian	99	1/267	1/26600	1/106400
EIF2B2	Leukoencephalopathy with vanishing white matter (EIF2B2-related)	Pan-ethnic	99	1/475	1/47400	1/189600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/329	1/32800	1/131200
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	1/412	1/41100	1/164400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
EIF2B3	Leukoencephalopathy with vanishing white matter (EIF2B3-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
EIF2B4	Leukoencephalopathy with vanishing white matter (EIF2B4-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
EIF2B5	Leukoencephalopathy with vanishing white matter (EIF2B5-related)	Pan-ethnic	99	1/407	1/40600	1/162400
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/485	1/48400	1/193600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/338	1/33700	1/134800
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ELP1	Familial dysautonomia	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	1/499	1/24900	1/99600
		Ashkenazi Jewish	99	1/31	1/3000	1/12000
		East Asian	99	1/476	1/47500	1/190000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
EMD	Emery-Dreifuss muscular dystrophy (EMD-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
EPB42	Spherocytosis (EPB42-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/456	1/45500	1/182000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
EPG5	Vici syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/325	1/32400	1/129600
		Ashkenazi Jewish	99	1/407	1/40600	1/162400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/377	1/37600	1/150400
ERBB3	ERBB3-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/386	1/38500	1/154000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/440	1/43900	1/175600
ERCC2	ERCC2-related conditions	Pan-ethnic	99	1/201	1/20000	1/80000
		African American/Black	99	1/322	1/32100	1/128400
		Latino/Admixed American	99	1/390	1/38900	1/155600
		Ashkenazi Jewish	99	1/154	1/15300	1/61200
		East Asian	98	1/394	1/19700	1/78800
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/177	1/17600	1/70400
		South Asian	99	1/436	1/43500	1/174000

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
ERCC3	ERCC3-related conditions	Pan-ethnic	99	1/404	1/40300	1/161200
		African American/Black	99	1/403	1/40200	1/160800
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/61	1/6000	1/24000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	1/415	1/20700	1/82800
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
ERCC4	ERCC4-related conditions	Pan-ethnic	99	1/392	1/39100	1/156400
		African American/Black	98	1/437	1/21800	1/87200
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	1/460	1/45900	1/183600
		East Asian	98	1/397	1/19800	1/79200
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	1/351	1/17500	1/70000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
ERCC5	ERCC5-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	1/335	1/33400	1/133600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	1/362	1/36100	1/144400
ERCC6	Cockayne syndrome B	Pan-ethnic	99	1/348	1/34700	1/138800
		African American/Black	98	1/357	1/17800	1/71200
		Latino/Admixed American	99	1/424	1/42300	1/169200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/486	1/48500	1/194000
		Finnish	99	1/368	1/36700	1/146800
		Non-Finnish European/White	99	1/318	1/31700	1/126800
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ERCC8	Cockayne syndrome A	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/259	1/25800	1/103200
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
ESCO2	Roberts syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	1/478	1/15900	1/63600
		Ashkenazi Jewish	97	1/442	1/14700	1/58800
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
ETFA	Glutaric acidemia type IIA	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
ETFB	Glutaric acidemia type IIB	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
ETFDH	Glutaric acidemia type IIC	Pan-ethnic	99	1/380	1/37900	1/151600
		African American/Black	99	1/418	1/41700	1/166800
		Latino/Admixed American	99	1/419	1/41800	1/167200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/118	1/11700	1/46800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/375	1/37400	1/149600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ETHE1	Ethylmalonic encephalopathy	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
EVC	Ellis-van Creveld syndrome (EVC-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/454	1/45300	1/181200
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/465	1/46400	1/185600
EVC2	EVC2-related conditions	Pan-ethnic	99	1/399	1/39800	1/159200
		African American/Black	99	1/319	1/31800	1/127200
		Latino/Admixed American	98	1/492	1/24600	1/98400
		Ashkenazi Jewish	99	1/182	1/18100	1/72400
		East Asian	99	1/284	1/28300	1/113200
		Finnish	97	1/258	1/8600	1/34400
		Non-Finnish European/White	98	1/467	1/23300	1/93200
		South Asian	98	1/400	1/20000	1/80000
EXOSC3	Pontocerebellar hypoplasia type 1B	Pan-ethnic	99	1/426	1/42500	1/170000
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	1/457	1/45600	1/182400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/371	1/37000	1/148000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
EYS	Retinitis pigmentosa 25	Pan-ethnic	99	1/106	1/10500	1/42000
		African American/Black	97	1/75	1/2500	1/10000
		Latino/Admixed American	99	1/77	1/7600	1/30400
		Ashkenazi Jewish	99	1/38	1/3700	1/14800
		East Asian	99	1/25	1/2400	1/9600
		Finnish	98	1/38	1/1900	1/7600
		Non-Finnish European/White	99	1/140	1/13900	1/55600
		South Asian	98	1/129	1/6400	1/25600

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
F11	Factor XI deficiency (hemophilia C)	Pan-ethnic	99	1/193	1/19200	1/76800
		African American/Black	99	1/405	1/40400	1/161600
		Latino/Admixed American	99	1/256	1/25500	1/102000
		Ashkenazi Jewish	99	1/12	1/1100	1/4400
		East Asian	99	1/189	1/18800	1/75200
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/287	1/28600	1/114400
		South Asian	99	1/230	1/22900	1/91600
F2	F2-related conditions	Pan-ethnic	99	1/42	1/4100	1/16400
		African American/Black	99	1/194	1/19300	1/77200
		Latino/Admixed American	99	1/42	1/4100	1/16400
		Ashkenazi Jewish	99	1/15	1/1400	1/5600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/89	1/8800	1/35200
		Non-Finnish European/White	99	1/38	1/3700	1/14800
		South Asian	99	1/237	1/23600	1/94400
F5	F5-related conditions	Pan-ethnic	99	1/492	1/49100	1/196400
		African American/Black	99	1/480	1/47900	1/191600
		Latino/Admixed American	99	1/396	1/39500	1/158000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/384	1/38300	1/153200
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/295	1/29400	1/117600
F7	Factor VII deficiency	Pan-ethnic	99	1/281	1/28000	1/112000
		African American/Black	99	1/59	1/5800	1/23200
		Latino/Admixed American	99	1/134	1/13300	1/53200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/295	1/29400	1/117600
		Finnish	99	1/483	1/48200	1/192800
		Non-Finnish European/White	99	1/348	1/34700	1/138800
		South Asian	99	1/107	1/10600	1/42400
F8	Factor VIII deficiency (hemophilia A)	Pan-ethnic	52	N/A*	Reduced	Reduced
		African American/Black	52	N/A*	Reduced	Reduced
		Latino/Admixed American	52	N/A*	Reduced	Reduced
		Ashkenazi Jewish	52	N/A*	Reduced	Reduced
		East Asian	52	N/A*	Reduced	Reduced
		Finnish	52	N/A*	Reduced	Reduced
		Non-Finnish European/White	52	N/A*	Reduced	Reduced
		South Asian	52	N/A*	Reduced	Reduced
F9	Factor IX deficiency (hemophilia B)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
FA2H	FA2H-related conditions	Pan-ethnic	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		African American/Black	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Latino/Admixed American	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Ashkenazi Jewish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		East Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Finnish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Non-Finnish European/White	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		South Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
FAH	Tyrosinemia type I	Pan-ethnic	95	1/339	1/6800	1/27200
		African American/Black	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Latino/Admixed American	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Ashkenazi Jewish	95	1/156	1/3100	1/12400
		East Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Finnish	95	1/243	1/4800	1/19200
		Non-Finnish European/White	95	1/342	1/6800	1/27200
		South Asian	95	1/356	1/7100	1/28400
FAM161A	Retinitis pigmentosa 28	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	1/227	1/7500	1/30000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	1/489	1/24400	1/97600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
FANCA	Fanconi anemia type A	Pan-ethnic	99	1/228	1/22700	1/90800
		African American/Black	99	1/222	1/22100	1/88400
		Latino/Admixed American	99	1/281	1/28000	1/112000
		Ashkenazi Jewish	99	1/265	1/26400	1/105600
		East Asian	98	1/284	1/14200	1/56800
		Finnish	99	1/252	1/25100	1/100400
		Non-Finnish European/White	99	1/216	1/21500	1/86000
		South Asian	99	1/232	1/23100	1/92400
FANCB	Fanconi anemia type B	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
FANCC	Fanconi anemia type C	Pan-ethnic	99	1/465	1/46400	1/185600
		African American/Black	98	1/239	1/11900	1/47600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	1/73	1/7200	1/28800
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	1/495	1/24700	1/98800
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
FANCD2	Fanconi anemia type D2	Pan-ethnic	94	1/342	1/5700	1/22800
		African American/Black	94	1/245	1/4100	1/16400
		Latino/Admixed American	94	1/346	1/5800	1/23200
		Ashkenazi Jewish	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		East Asian	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		Finnish	94	1/481	1/8000	1/32000
		Non-Finnish European/White	94	1/368	1/6100	1/24400
		South Asian	94	1/410	1/6800	1/27200
FANCE	Fanconi anemia type E	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/423	1/42200	1/168800
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	1/459	1/22900	1/91600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
FANCF	Fanconi anemia type F	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
FANCG	Fanconi anemia type G	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	1/321	1/16000	1/64000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
FANCI	Fanconi anemia type I	Pan-ethnic	99	1/437	1/43600	1/174400
		African American/Black	98	1/431	1/21500	1/86000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/397	1/39600	1/158400
		Finnish	98	1/131	1/6500	1/26000
		Non-Finnish European/White	99	1/486	1/48500	1/194000
		South Asian	98	1/196	1/9800	1/39200
FANCL	Fanconi anemia type L	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
FBP1	Fructose-1,6-bisphosphatase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/417	1/41600	1/166400
FBXL4	Mitochondrial DNA depletion syndrome-13	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
FBXO7	Parkinson disease 15	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
FGD1	Aarskog-Scott syndrome	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
FH	FH-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
FHL1	FHL1-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
FKBP10	FKBP10-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
FKRP	Muscular dystrophy-dystroglycanopathy (FKRP-related)	Pan-ethnic	99	1/203	1/20200	1/80800
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/378	1/37700	1/150800
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/349	1/34800	1/139200
		Finnish	99	1/197	1/19600	1/78400
		Non-Finnish European/White	99	1/178	1/17700	1/70800
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
FKTN	Muscular dystrophy-dystroglycanopathy (FKTN-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	97	1/70	1/2300	1/9200
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
FMO3	Trimethylaminuria	Pan-ethnic	99	1/226	1/22500	1/90000
		African American/Black	98	1/317	1/15800	1/63200
		Latino/Admixed American	99	1/326	1/32500	1/130000
		Ashkenazi Jewish	99	1/250	1/24900	1/99600
		East Asian	98	1/97	1/4800	1/19200
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/242	1/24100	1/96400
		South Asian	98	1/278	1/13900	1/55600

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
FMR1	FMR1-related conditions including fragile X syndrome	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
FOLR1	Cerebral folate deficiency (FOLR1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
FOXN1	FOXN1-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
FOXP3	X-linked immunodysregulation, polyendocrinopathy, and enteropathy	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
FOXRED1	Mitochondrial complex I deficiency 19	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	1/475	1/23700	1/94800
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
FRAS1	Fraser syndrome (FRAS1-related)	Pan-ethnic	99	1/329	1/32800	1/131200
		African American/Black	98	1/341	1/17000	1/68000
		Latino/Admixed American	99	1/321	1/32000	1/128000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/290	1/28900	1/115600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/338	1/33700	1/134800
		South Asian	99	1/280	1/27900	1/111600
FREM2	Fraser syndrome (FREM2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
FTCD	Glutamate formiminotransferase deficiency	Pan-ethnic	99	1/60	1/5900	1/23600
		African American/Black	99	1/213	1/21200	1/84800
		Latino/Admixed American	99	1/225	1/22400	1/89600
		Ashkenazi Jewish	99	1/114	1/11300	1/45200
		East Asian	99	1/242	1/24100	1/96400
		Finnish	99	1/49	1/4800	1/19200
		Non-Finnish European/White	99	1/44	1/4300	1/17200
		South Asian	99	1/168	1/16700	1/66800
FTSJ1	X-linked intellectual disability (FTSJ1-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
FUCA1	Fucosidosis	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
FXN	Friedreich ataxia	Pan-ethnic	4	≤ 1/500	≤ 1/520	≤ 1/2080
		African American/Black	4	≤ 1/500	≤ 1/500	≤ 1/2000
		Latino/Admixed American	4	≤ 1/500	≤ 1/500	≤ 1/2000
		Ashkenazi Jewish	4	≤ 1/500	≤ 1/500	≤ 1/2000
		East Asian	4	≤ 1/500	≤ 1/500	≤ 1/2000
		Finnish	4	≤ 1/500	≤ 1/500	≤ 1/2000
		Non-Finnish European/White	4	≤ 1/500	≤ 1/500	≤ 1/2000
		South Asian	4	≤ 1/500	≤ 1/500	≤ 1/2000
G6PC1 / G6PC	Glycogen storage disease type Ia	Pan-ethnic	95	1/319	1/6400	1/25600
		African American/Black	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Latino/Admixed American	95	1/321	1/6400	1/25600
		Ashkenazi Jewish	95	1/72	1/1400	1/5600
		East Asian	95	1/180	1/3600	1/14400
		Finnish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Non-Finnish European/White	95	1/315	1/6300	1/25200
		South Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
G6PC3	Severe congenital neutropenia due to G6PC3 deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
G6PD	Glucose-6-phosphate dehydrogenase deficiency	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
GAA	Glycogen storage disease type II (Pompe disease)	Pan-ethnic	99	1/57	1/5600	1/22400
		African American/Black	99	1/82	1/8100	1/32400
		Latino/Admixed American	99	1/81	1/8000	1/32000
		Ashkenazi Jewish	99	1/85	1/8400	1/33600
		East Asian	99	1/122	1/12100	1/48400
		Finnish	99	1/407	1/40600	1/162400
		Non-Finnish European/White	99	1/51	1/5000	1/20000
		South Asian	99	1/117	1/11600	1/46400
GALC	Krabbe disease	Pan-ethnic	99	1/321	1/32000	1/128000
		African American/Black	98	1/193	1/9600	1/38400
		Latino/Admixed American	99	1/386	1/38500	1/154000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/51	1/5000	1/20000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/363	1/36200	1/144800
		South Asian	99	1/343	1/34200	1/136800
GALE	Epimerase deficiency galactosemia	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/293	1/29200	1/116800
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
GALK1	Galactokinase deficiency galactosemia	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	1/384	1/38300	1/153200
GALNS	Mucopolysaccharidosis type IVA	Pan-ethnic	99	1/283	1/28200	1/112800
		African American/Black	99	1/220	1/21900	1/87600
		Latino/Admixed American	99	1/260	1/25900	1/103600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/407	1/40600	1/162400
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/272	1/27100	1/108400
		South Asian	99	1/280	1/27900	1/111600
GALNT3	Hyperphosphatemic familial tumoral calcinosis (GALNT3-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/227	1/22600	1/90400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
GALT	Galactosemia (GALT-related)	Pan-ethnic	99	1/132	1/13100	1/52400
		African American/Black	98	1/104	1/5200	1/20800
		Latino/Admixed American	97	1/197	1/6500	1/26000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	1/445	1/14800	1/59200
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	1/115	1/3800	1/15200
		South Asian	99	1/272	1/27100	1/108400

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
GAMT	Guanidinoacetate methyltransferase deficiency	Pan-ethnic	99	1/426	1/42500	1/170000
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/373	1/37200	1/148800
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
GATM	GATM-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
GBA1 / GBA	GBA-related conditions including Gaucher disease	Pan-ethnic	72	1/147	1/522	1/2088
		African American/Black	72	1/221	1/800	1/3200
		Latino/Admixed American	72	1/192	1/700	1/2800
		Ashkenazi Jewish	94	1/15	1/234	1/936
		East Asian	72	1/388	1/1400	1/5600
		Finnish	72	1/327	1/1200	1/4800
		Non-Finnish European/White	72	1/168	1/600	1/2400
		South Asian	72	1/320	1/1100	1/4400
GBE1	GBE1-related conditions	Pan-ethnic	99	1/275	1/27400	1/109600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	1/329	1/16400	1/65600
		Ashkenazi Jewish	99	1/66	1/6500	1/26000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/257	1/25600	1/102400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
GCDH	Glutaric acidemia type I	Pan-ethnic	99	1/195	1/19400	1/77600
		African American/Black	99	1/95	1/9400	1/37600
		Latino/Admixed American	99	1/196	1/19500	1/78000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/243	1/24200	1/96800
		Finnish	99	1/342	1/34100	1/136400
		Non-Finnish European/White	99	1/190	1/18900	1/75600
		South Asian	99	1/201	1/20000	1/80000
GCH1	GCH1-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
GDAP1	Charcot-Marie-Tooth disease (GDAP1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/323	1/32200	1/128800
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
GDF5	GDF5-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
GFM1	Combined oxidative phosphorylation deficiency 1	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	1/494	1/49300	1/197200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	1/408	1/20400	1/81600
GFPT1	Congenital myasthenic syndrome (GFPT1-related)	Pan-ethnic	99	1/222	1/22100	1/88400
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/179	1/17800	1/71200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/184	1/18300	1/73200
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
GHR	GHR-related conditions	Pan-ethnic	98	≤ 1/500	≤ 1/24950	≤ 1/99800
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
GHRHR	Isolated growth hormone deficiency type IV	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/165	1/16400	1/65600
GJB1	Charcot-Marie-Tooth disease type 1X	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
GJB2	GJB2-related conditions	Pan-ethnic	99	1/19	1/1800	1/7200
		African American/Black	99	1/59	1/5800	1/23200
		Latino/Admixed American	95	1/23	1/400	1/1600
		Ashkenazi Jewish	98	1/12	1/600	1/2400
		East Asian	99	1/9	1/800	1/3200
		Finnish	99	1/15	1/1400	1/5600
		Non-Finnish European/White	99	1/19	1/1800	1/7200
		South Asian	99	1/45	1/4400	1/17600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
GLA	Fabry disease	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
GLB1	GLB1-related conditions	Pan-ethnic	99	1/332	1/33100	1/132400
		African American/Black	99	1/345	1/34400	1/137600
		Latino/Admixed American	99	1/252	1/25100	1/100400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	1/406	1/20300	1/81200
		Finnish	98	1/262	1/13100	1/52400
		Non-Finnish European/White	99	1/338	1/33700	1/134800
		South Asian	99	1/203	1/20200	1/80800
GLDC	Glycine encephalopathy (GLDC-related)	Pan-ethnic	99	1/294	1/29300	1/117200
		African American/Black	99	1/336	1/33500	1/134000
		Latino/Admixed American	99	1/317	1/31600	1/126400
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	1/363	1/36200	1/144800
		Finnish	99	1/140	1/13900	1/55600
		Non-Finnish European/White	99	1/295	1/29400	1/117600
		South Asian	99	1/339	1/33800	1/135200
GLE1	GLE1-related conditions	Pan-ethnic	99	1/493	1/49200	1/196800
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/50	1/4900	1/19600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
GNE	GNE-related conditions	Pan-ethnic	99	1/391	1/39000	1/156000
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/139	1/13800	1/55200
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/369	1/36800	1/147200
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
GNPAT	Rhizomelic chondrodysplasia punctata type 2	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
GNPTAB	GNPTAB-related conditions	Pan-ethnic	99	1/321	1/32000	1/128000
		African American/Black	97	1/429	1/14300	1/57200
		Latino/Admixed American	97	1/312	1/10400	1/41600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/285	1/28400	1/113600
		Finnish	97	1/157	1/5200	1/20800
		Non-Finnish European/White	98	1/344	1/17200	1/68800
		South Asian	98	1/213	1/10600	1/42400

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
GNPTG	Mucopolidosis type III gamma	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
GNRHR	Idiopathic hypogonadotropic hypogonadism (GNRHR-related)	Pan-ethnic	99	1/88	1/8700	1/34800
		African American/Black	99	1/396	1/39500	1/158000
		Latino/Admixed American	99	1/134	1/13300	1/53200
		Ashkenazi Jewish	99	1/78	1/7700	1/30800
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/60	1/5900	1/23600
		Non-Finnish European/White	99	1/81	1/8000	1/32000
		South Asian	99	1/133	1/13200	1/52800
GNS	Mucopolysaccharidosis type IIID	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
GORAB	Geroderma osteodysplastica	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
GP1BA	GP1BA-related conditions	Pan-ethnic	78	1/388	1/1760	1/7040
		African American/Black	78	≤ 1/500	≤ 1/2300	≤ 1/9200
		Latino/Admixed American	78	≤ 1/500	≤ 1/2300	≤ 1/9200
		Ashkenazi Jewish	78	≤ 1/500	≤ 1/2300	≤ 1/9200
		East Asian	78	≤ 1/500	≤ 1/2300	≤ 1/9200
		Finnish	78	1/355	1/1600	1/6400
		Non-Finnish European/White	78	1/233	1/1100	1/4400
		South Asian	78	1/176	1/800	1/3200
GP9	Bernard-Soulier syndrome (GP9-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
GPHN	GPHN-related conditions	Pan-ethnic	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		African American/Black	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Latino/Admixed American	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Ashkenazi Jewish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		East Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Finnish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Non-Finnish European/White	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		South Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
GPR143	GPR143-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
GRHPR	Primary hyperoxaluria type 2	Pan-ethnic	99	1/478	1/47700	1/190800
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	97	1/451	1/15000	1/60000
		South Asian	99	1/312	1/31100	1/124400
GRIP1	Fraser syndrome (GRIP1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
GSS	Glutathione synthetase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	1/432	1/21600	1/86400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/105	1/10400	1/41600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
GUCY2D	GUCY2D-related conditions	Pan-ethnic	99	1/392	1/39100	1/156400
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/117	1/11600	1/46400
		Non-Finnish European/White	99	1/388	1/38700	1/154800
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
GUSB	Mucopolysaccharidosis type VII	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
GYS2	Glycogen storage disease type 0a	Pan-ethnic	99	1/324	1/32300	1/129200
		African American/Black	99	1/370	1/36900	1/147600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/302	1/30100	1/120400
		South Asian	99	1/161	1/16000	1/64000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
HADH	Medium/short-chain 3-hydroxyacyl-CoA dehydrogenase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
HADHA	HADHA-related conditions	Pan-ethnic	99	1/272	1/27100	1/108400
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/440	1/43900	1/175600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	1/112	1/11100	1/44400
		Non-Finnish European/White	99	1/256	1/25500	1/102000
		South Asian	99	1/450	1/44900	1/179600
HADHB	Mitochondrial trifunctional protein deficiency (HADHB-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/483	1/48200	1/192800
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
HAMP	Hereditary hemochromatosis type 2 (HAMP-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
HAX1	Severe congenital neutropenia due to HAX1 deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
HBA1/HBA2	Alpha-thalassemia	Pan-ethnic	90	1/5	1/41	1/164
		African	90	1/3	1/21	1/84
		American	90	1/21	1/201	1/804
		Eastern Mediterranean	90	1/5	1/41	1/164
		European	90	1/44	1/431	1/1724
		Southeast Asian	90	1/2	1/11	1/44
		Western Pacific	90	1/10	1/91	1/364
		Pan-ethnic	99	1/121	1/12000	1/48000
HBB	HBB-related hemoglobinopathies	African American/Black	99	1/8	1/700	1/2800
		Latino/Admixed American	99	1/111	1/11000	1/44000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	1/147	1/7300	1/29200
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/25	1/2400	1/9600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
HCFC1	HCFC1-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	97	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
HELLS	Immunodeficiency-centromeric instability-facial anomalies syndrome 4	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
HEXA	Tay-Sachs disease	Pan-ethnic	99	1/208	1/20700	1/82800
		African American/Black	99	1/311	1/31000	1/124000
		Latino/Admixed American	99	1/314	1/31300	1/125200
		Ashkenazi Jewish	97	1/29	1/900	1/3600
		East Asian	99	1/493	1/49200	1/196800
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	1/223	1/22200	1/88800
		South Asian	99	1/403	1/40200	1/160800
HEXB	Sandhoff disease	Pan-ethnic	99	1/312	1/31100	1/124400
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	1/295	1/14700	1/58800
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/118	1/11700	1/46800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/297	1/29600	1/118400
		South Asian	99	1/458	1/45700	1/182800
HFE	Hereditary hemochromatosis type 1	Pan-ethnic	99	1/3	1/200	1/800
		African American/Black	99	1/13	1/1200	1/4800
		Latino/Admixed American	99	1/4	1/300	1/1200
		Ashkenazi Jewish	99	1/4	1/300	1/1200
		East Asian	99	1/16	1/1500	1/6000
		Finnish	99	1/4	1/300	1/1200
		Non-Finnish European/White	99	1/3	1/200	1/800
		South Asian	99	1/6	1/500	1/2000
HGD	Alkaptonuria	Pan-ethnic	99	1/366	1/36500	1/146000
		African American/Black	99	1/456	1/45500	1/182000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/339	1/33800	1/135200
		South Asian	99	1/220	1/21900	1/87600
HGSNAT	HGSNAT-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
HINT1	Neuromyotonia and axonal neuropathy	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
HJV	Hereditary hemochromatosis type 2 (HJV-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
HLCS	Holocarboxylase synthetase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/257	1/25600	1/102400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
HMGCL	3-hydroxy-3-methylglutaryl-CoA lyase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
HMGCS2	3-hydroxy-3-methylglutaryl-CoA synthase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/375	1/37400	1/149600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/340	1/33900	1/135600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/360	1/35900	1/143600
HMOX1	Heme oxygenase 1 deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
HOGA1	Primary hyperoxaluria type 3	Pan-ethnic	99	1/142	1/14100	1/56400
		African American/Black	99	1/306	1/30500	1/122000
		Latino/Admixed American	99	1/191	1/19000	1/76000
		Ashkenazi Jewish	97	1/35	1/1100	1/4400
		East Asian	99	1/182	1/18100	1/72400
		Finnish	99	1/491	1/49000	1/196000
		Non-Finnish European/White	99	1/140	1/13900	1/55600
		South Asian	99	1/217	1/21600	1/86400

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
HPD	Tyrosinemia type III	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
HPRT1	HPRT1-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
HPS1	Hermansky-Pudlak syndrome type 1	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	1/285	1/14200	1/56800
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	1/204	1/6800	1/27200
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
HPS3	Hermansky-Pudlak syndrome type 3	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	1/273	1/27200	1/108800
		East Asian	99	1/233	1/23200	1/92800
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	1/334	1/33300	1/133200
HPS4	Hermansky-Pudlak syndrome type 4	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
HPS5	Hermansky-Pudlak syndrome type 5	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	1/480	1/24000	1/96000
		Ashkenazi Jewish	97	1/323	1/10700	1/42800
		East Asian	98	1/321	1/16000	1/64000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	1/493	1/24600	1/98400
HPS6	Hermansky-Pudlak syndrome type 6	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	1/445	1/22200	1/88800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
HSD17B10	2-methyl-3-hydroxybutyric aciduria	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
HSD17B3	17-beta hydroxysteroid dehydrogenase 3 deficiency	Pan-ethnic	99	1/293	1/29200	1/116800
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/249	1/24800	1/99200
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
HSD17B4	HSD17B4-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	1/447	1/22300	1/89200
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
HSD3B2	Congenital adrenal hyperplasia due to 3-beta-hydroxysteroid dehydrogenase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
HSD3B7	Congenital bile acid synthesis defect type 1	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
HYAL1	Mucopolysaccharidosis type IX	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
HYCC1 / FAM126A	Hypomyelination and congenital cataracts	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
HYLS1	HYLS1-related conditions	Pan-ethnic	99	1/482	1/48100	1/192400
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	1/347	1/34600	1/138400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/232	1/23100	1/92400
		Finnish	97	1/56	1/1800	1/7200
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/301	1/30000	1/120000
IDH3B	Retinitis pigmentosa 46	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
IDS	Mucopolysaccharidosis type II	Pan-ethnic	90	N/A*	Reduced	Reduced
		African American/Black	90	N/A*	Reduced	Reduced
		Latino/Admixed American	90	N/A*	Reduced	Reduced
		Ashkenazi Jewish	90	N/A*	Reduced	Reduced
		East Asian	90	N/A*	Reduced	Reduced
		Finnish	90	N/A*	Reduced	Reduced
		Non-Finnish European/White	90	N/A*	Reduced	Reduced
		South Asian	90	N/A*	Reduced	Reduced
IDUA	Mucopolysaccharidosis type I	Pan-ethnic	97	1/144	1/4767	1/19068
		African American/Black	99	1/380	1/37900	1/151600
		Latino/Admixed American	99	1/246	1/24500	1/98000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	1/369	1/36800	1/147200
		Finnish	99	1/157	1/15600	1/62400
		Non-Finnish European/White	99	1/130	1/12900	1/51600
		South Asian	98	1/253	1/12600	1/50400
IFT140	IFT140-related conditions	Pan-ethnic	99	1/312	1/31100	1/124400
		African American/Black	98	1/280	1/14000	1/56000
		Latino/Admixed American	98	1/379	1/18900	1/75600
		Ashkenazi Jewish	99	1/186	1/18500	1/74000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	1/301	1/30000	1/120000
		South Asian	99	1/293	1/29200	1/116800
IGHMBP2	IGHMBP2-related conditions	Pan-ethnic	99	1/323	1/32200	1/128800
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/373	1/37200	1/148800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/288	1/28700	1/114800
		South Asian	99	1/282	1/28100	1/112400
IGSF1	Central hypothyroidism and testicular enlargement	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
IKBKB	IKBKB-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
IL1RAPL1	X-linked intellectual disability (IL1RAPL1-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
IL2RA	CD25 deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
IL2RG	X-linked severe combined immunodeficiency	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
IL7R	Severe combined immunodeficiency due to IL7R-alpha deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
INPP5E	INPP5E-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
INVS	Nephronophthisis (INVS-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/447	1/44600	1/178400

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
ITGA2B	ITGA2B-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/468	1/46700	1/186800
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/318	1/31700	1/126800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/464	1/46300	1/185200
ITGA6	Junctional epidermolysis bullosa with pyloric atresia (ITGA6-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ITGB3	ITGB3-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/391	1/39000	1/156000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ITGB4	Epidermolysis bullosa with pyloric atresia (ITGB4-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/328	1/32700	1/130800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/273	1/27200	1/108800
ITPA	Inosine triphosphate pyrophosphohydrolase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
IVD	Isovaleric acidemia	Pan-ethnic	99	1/309	1/30800	1/123200
		African American/Black	99	1/367	1/36600	1/146400
		Latino/Admixed American	99	1/390	1/38900	1/155600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/266	1/26500	1/106000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
IYD	Thyroid dysmorphogenesis (IYD-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
JAK3	Severe combined immunodeficiency due to JAK3 deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	1/321	1/16000	1/64000
KCNJ1	Bartter syndrome type 2	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	1/343	1/34200	1/136800
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/160	1/15900	1/63600
KCNJ11	KCNJ11-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
KCTD7	Progressive myoclonic epilepsy with or without intracellular inclusions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
KDM5C	X-linked intellectual disability (KDM5C-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
KIF14	KIF14-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	1/276	1/13800	1/55200
		Latino/Admixed American	98	1/313	1/15600	1/62400
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	1/299	1/9900	1/39600
LICAM	L1 syndrome	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
LAMA2	LAMA2-related muscular dystrophy	Pan-ethnic	99	1/248	1/24700	1/98800
		African American/Black	99	1/234	1/23300	1/93200
		Latino/Admixed American	97	1/279	1/9300	1/37200
		Ashkenazi Jewish	99	1/264	1/26300	1/105200
		East Asian	99	1/147	1/14600	1/58400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	1/245	1/12200	1/48800
		South Asian	98	1/292	1/14600	1/58400
LAMA3	LAMA3-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	1/339	1/33800	1/135200
LAMB3	LAMB3-related conditions	Pan-ethnic	99	1/324	1/32300	1/129200
		African American/Black	98	1/271	1/13500	1/54000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/282	1/28100	1/112400
		South Asian	98	1/458	1/22900	1/91600
LAMC2	Junctional epidermolysis bullosa (LAMC2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	1/399	1/39800	1/159200
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
LAMP2	Danon disease	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
LARGE1	Muscular dystrophy-dystroglycanopathy (LARGE1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
LARS1 / LARS	Infantile liver failure (LARS-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	1/453	1/45200	1/180800
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
LCA5	Leber congenital amaurosis 5	Pan-ethnic	97	≤ 1/500	≤ 1/16634	≤ 1/66536
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	1/218	1/21700	1/86800
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
LCK	Combined immunodeficiency due to LCK deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
LDLR	Familial hypercholesterolemia (LDLR-related)	Pan-ethnic	99	1/273	1/27200	1/108800
		African American/Black	99	1/250	1/24900	1/99600
		Latino/Admixed American	99	1/211	1/21000	1/84000
		Ashkenazi Jewish	99	1/460	1/45900	1/183600
		East Asian	99	1/146	1/14500	1/58000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/291	1/29000	1/116000
		South Asian	99	1/149	1/14800	1/59200
LDLRAP1	Familial hypercholesterolemia (LDLRAP1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
LHCGR	LHCGR-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
LHX3	Combined pituitary hormone deficiency (LHX3-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
LIFR	Stüve-Wiedemann syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	1/492	1/49100	1/196400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	1/440	1/14600	1/58400

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
LIG4	LIG4 syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	1/218	1/7200	1/28800
		Latino/Admixed American	97	1/460	1/15300	1/61200
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	1/492	1/24600	1/98400
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
LIPA	Lysosomal acid lipase deficiency	Pan-ethnic	94	1/303	1/5000	1/20000
		African American/Black	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		Latino/Admixed American	94	1/396	1/6600	1/26400
		Ashkenazi Jewish	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		East Asian	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		Finnish	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		Non-Finnish European/White	94	1/260	1/4300	1/17200
		South Asian	94	≤ 1/500	≤ 1/8300	≤ 1/33200
LMAN1	Combined factor V and VIII deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
LMBRD1	Cobalamin F deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/344	1/34300	1/137200
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	1/454	1/15100	1/60400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
LOXHD1	Nonsyndromic deafness (LOXHD1-related)	Pan-ethnic	99	1/199	1/19800	1/79200
		African American/Black	98	1/285	1/14200	1/56800
		Latino/Admixed American	99	1/269	1/26800	1/107200
		Ashkenazi Jewish	99	1/174	1/17300	1/69200
		East Asian	99	1/274	1/27300	1/109200
		Finnish	99	1/293	1/29200	1/116800
		Non-Finnish European/White	99	1/188	1/18700	1/74800
		South Asian	99	1/284	1/28300	1/113200
LPAR6	LPAR6-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/396	1/39500	1/158000
LPL	Familial chylomicronemia syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/227	1/22600	1/90400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/486	1/48500	1/194000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
LRAT	LRAT-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
LRP2	Donnai-Barrow syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
LRPPRC	Mitochondrial complex IV deficiency / Leigh syndrome, French Canadian type	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	1/413	1/13700	1/54800
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
LTBP4	Cutis laxa type 1C	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
LYST	Chediak-Higashi syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
MAK	Retinitis pigmentosa 62	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	1/476	1/23800	1/95200
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
MALT1	Combined immunodeficiency due to MALT1 deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
MAN2B1	Alpha-mannosidosis	Pan-ethnic	99	1/431	1/43000	1/172000
		African American/Black	99	1/346	1/34500	1/138000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/233	1/23200	1/92800
		Non-Finnish European/White	99	1/397	1/39600	1/158400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
MANBA	Beta-mannosidosis	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
MAT1A	Hypermethioninemia	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/313	1/31200	1/124800
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
MCCC1	3-methylcrotonyl-CoA carboxylase (3-MCC) deficiency (MCCC1-related)	Pan-ethnic	99	1/455	1/45400	1/181600
		African American/Black	99	1/350	1/34900	1/139600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/380	1/37900	1/151600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/414	1/41300	1/165200
		South Asian	99	1/472	1/47100	1/188400
MCCC2	3-methylcrotonyl-CoA carboxylase (3-MCC) deficiency (MCCC2-related)	Pan-ethnic	99	1/260	1/25900	1/103600
		African American/Black	99	1/429	1/42800	1/171200
		Latino/Admixed American	99	1/123	1/12200	1/48800
		Ashkenazi Jewish	99	1/187	1/18600	1/74400
		East Asian	99	1/301	1/30000	1/120000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/270	1/26900	1/107600
		South Asian	99	1/366	1/36500	1/146000
MCEE	Methylmalonic acidemia (MCEE-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
MCOLN1	MCOLN1- related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/118	1/11700	1/46800
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
MCPH1	Primary microcephaly (MCPH1-related)	Pan-ethnic	99	1/380	1/37900	1/151600
		African American/Black	98	1/395	1/19700	1/78800
		Latino/Admixed American	98	1/423	1/21100	1/84400
		Ashkenazi Jewish	97	1/297	1/9900	1/39600
		East Asian	99	1/476	1/47500	1/190000
		Finnish	97	1/245	1/8100	1/32400
		Non-Finnish European/White	99	1/380	1/37900	1/151600
		South Asian	98	1/488	1/24400	1/97600
MECP2	MECP2-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
MECR	Childhood-onset dystonia with optic atrophy and basal ganglia abnormalities	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/117	1/11600	1/46400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
MED17	Microcephaly, postnatal progressive, with seizures and brain atrophy	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
MEFV	Familial Mediterranean fever	Pan-ethnic	90	1/246	1/2500	1/10000
		African American/Black	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		Latino/Admixed American	90	1/301	1/3000	1/12000
		Ashkenazi Jewish	90	1/13	1/100	1/400
		East Asian	90	1/236	1/2400	1/9600
		Finnish	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		Non-Finnish European/White	90	1/469	1/4700	1/18800
		South Asian	90	≤ 1/500	≤ 1/5000	≤ 1/20000
MEGF8	Carpenter syndrome (MEGF8-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	1/458	1/45700	1/182800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	1/487	1/48600	1/194400
MESP2	Spondylocostal dysostosis (MESP2-related)	Pan-ethnic	99	1/387	1/38600	1/154400
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	1/248	1/24700	1/98800
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/277	1/27600	1/110400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	1/345	1/11500	1/46000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
MFSD8	MFSD8-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/471	1/47000	1/188000
MID1	Opitz GBBB syndrome (MID1-related)	Pan-ethnic	98	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	98	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
MKKS	MKKS-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	1/366	1/18300	1/73200
MKS1	Joubert syndrome and related disorders (MKS1-related)	Pan-ethnic	95	1/296	1/5900	1/23600
		African American/Black	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Latino/Admixed American	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Ashkenazi Jewish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		East Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Finnish	95	1/64	1/1300	1/5200
		Non-Finnish European/White	95	1/304	1/6100	1/24400
		South Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
MLC1	Megalencephalic leukoencephalopathy with subcortical cysts 1	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/288	1/28700	1/114800
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
MLYCD	Malonyl-CoA decarboxylase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/457	1/45600	1/182400
MMAA	Methylmalonic acidemia (MMAA-related)	Pan-ethnic	97	≤ 1/500	≤ 1/16634	≤ 1/66536
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
MMAB	Methylmalonic acidemia (MMAB-related)	Pan-ethnic	98	≤ 1/500	≤ 1/24950	≤ 1/99800
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/464	1/46300	1/185200
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
MMACHC	Cobalamin C deficiency	Pan-ethnic	99	1/206	1/20500	1/82000
		African American/Black	98	1/252	1/12600	1/50400
		Latino/Admixed American	98	1/89	1/4400	1/17600
		Ashkenazi Jewish	97	1/170	1/5600	1/22400
		East Asian	99	1/245	1/24400	1/97600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	1/210	1/10500	1/42000
		South Asian	99	1/212	1/21100	1/84400
MMADHC	Cobalamin D deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
MMUT / MUT	Methylmalonic acidemia (MUT-related)	Pan-ethnic	96	1/276	1/6875	1/27500
		African American/Black	96	1/197	1/4900	1/19600
		Latino/Admixed American	96	1/202	1/5000	1/20000
		Ashkenazi Jewish	96	1/307	1/7700	1/30800
		East Asian	96	1/106	1/2600	1/10400
		Finnish	96	≤ 1/500	≤ 1/12500	≤ 1/50000
		Non-Finnish European/White	96	1/306	1/7600	1/30400
		South Asian	96	1/185	1/4600	1/18400
MOCS1	Molybdenum cofactor deficiency (MOCS1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
MOCS2	Molybdenum cofactor deficiency (MOCS2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
MPI	Congenital disorder of glycosylation type Ib	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
MPL	MPL-related conditions	Pan-ethnic	99	1/296	1/29500	1/118000
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/63	1/6200	1/24800
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/293	1/29200	1/116800
MPV17	MPV17-related conditions	South Asian	98	1/394	1/19700	1/78800
		Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/409	1/40800	1/163200
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
MRE11	Ataxia-telangiectasia-like disorder	Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
MTHFD1	Methylenetetrahydrofolate dehydrogenase 1 deficiency	Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/359	1/35800	1/143200
MTHFR	Homocystinuria due to MTHFR deficiency	East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/456	1/45500	1/182000
MTM1	X-linked myotubular myopathy	Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/179	1/17800	1/71200
		Pan-ethnic	96	N/A*	Reduced	Reduced
		African American/Black	96	N/A*	Reduced	Reduced
MTMR2	Charcot-Marie-Tooth disease type 4B1	Latino/Admixed American	96	N/A*	Reduced	Reduced
		Ashkenazi Jewish	96	N/A*	Reduced	Reduced
		East Asian	96	N/A*	Reduced	Reduced
		Finnish	96	N/A*	Reduced	Reduced
		Non-Finnish European/White	96	N/A*	Reduced	Reduced
		South Asian	96	N/A*	Reduced	Reduced
		Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
MTMR2	Charcot-Marie-Tooth disease type 4B1	African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/215	1/21400	1/85600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
MTR	Homocystinuria due to cobalamin G deficiency	Pan-ethnic	99	1/339	1/33800	1/135200
		African American/Black	99	1/377	1/37600	1/150400
		Latino/Admixed American	99	1/204	1/20300	1/81200
		Ashkenazi Jewish	99	1/423	1/42200	1/168800
		East Asian	99	1/383	1/38200	1/152800
		Finnish	99	1/281	1/28000	1/112000
		Non-Finnish European/White	99	1/389	1/38800	1/155200
		South Asian	99	1/126	1/12500	1/50000
MTRR	Homocystinuria due to cobalamin E deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
MTTP	Abetalipoproteinemia	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/188	1/18700	1/74800
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
MUSK	MUSK-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
MVK	MVK-related conditions	Pan-ethnic	99	1/164	1/16300	1/65200
		African American/Black	99	1/357	1/35600	1/142400
		Latino/Admixed American	99	1/282	1/28100	1/112400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/195	1/19400	1/77600
		Non-Finnish European/White	99	1/147	1/14600	1/58400
		South Asian	99	1/333	1/33200	1/132800
MYO15A	Nonsyndromic deafness (MYO15A-related)	Pan-ethnic	99	1/125	1/12400	1/49600
		African American/Black	99	1/124	1/12300	1/49200
		Latino/Admixed American	99	1/77	1/7600	1/30400
		Ashkenazi Jewish	99	1/82	1/8100	1/32400
		East Asian	99	1/56	1/5500	1/22000
		Finnish	99	1/138	1/13700	1/54800
		Non-Finnish European/White	99	1/131	1/13000	1/52000
		South Asian	99	1/146	1/14500	1/58000
MYO7A	MYO7A-related conditions	Pan-ethnic	95	1/171	1/3400	1/13600
		African American/Black	95	1/200	1/4000	1/16000
		Latino/Admixed American	95	1/203	1/4000	1/16000
		Ashkenazi Jewish	95	1/274	1/5500	1/22000
		East Asian	95	1/290	1/5800	1/23200
		Finnish	95	1/302	1/6000	1/24000
		Non-Finnish European/White	95	1/161	1/3200	1/12800
		South Asian	95	1/165	1/3300	1/13200

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
NAGA	Alpha-N-acetylgalactosaminidase deficiency	Pan-ethnic	99	1/123	1/12200	1/48800
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/378	1/37700	1/150800
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/345	1/34400	1/137600
		Non-Finnish European/White	99	1/106	1/10500	1/42000
		South Asian	99	1/161	1/16000	1/64000
NAGLU	Mucopolysaccharidosis type IIIB	Pan-ethnic	99	1/412	1/41100	1/164400
		African American/Black	99	1/404	1/40300	1/161200
		Latino/Admixed American	99	1/455	1/45400	1/181600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/378	1/37700	1/150800
		South Asian	99	1/432	1/43100	1/172400
NAGS	N-acetylglutamate synthase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
NBAS	NBAS-related conditions	Pan-ethnic	99	1/254	1/25300	1/101200
		African American/Black	98	1/296	1/14800	1/59200
		Latino/Admixed American	98	1/285	1/14200	1/56800
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/177	1/17600	1/70400
		Finnish	98	1/242	1/12100	1/48400
		Non-Finnish European/White	99	1/244	1/24300	1/97200
		South Asian	99	1/341	1/34000	1/136000
NBEAL2	Gray platelet syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/490	1/48900	1/195600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
NBN	Nijmegen breakage syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
NCF2	Chronic granulomatous disease (NCF2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
NCF4	Chronic granulomatous disease (NCF4-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/463	1/46200	1/184800
NDP	NDP-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
NDRG1	Charcot-Marie-Tooth disease type 4D	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
NDUFA11	Mitochondrial complex I deficiency 14	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
NDUFAF2	Mitochondrial complex I deficiency 10	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
NDUFAF5	Mitochondrial complex I deficiency 16	Pan-ethnic	99	1/481	1/48000	1/192000
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/183	1/18200	1/72800
		East Asian	99	1/420	1/41900	1/167600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/447	1/44600	1/178400
		South Asian	99	1/420	1/41900	1/167600
NDUFS4	Mitochondrial complex I deficiency 1	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
NDUFS6	Mitochondrial complex I deficiency 9	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
NDUFS7	Mitochondrial complex I deficiency 3	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
NDUFV1	Mitochondrial complex I deficiency 4	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/370	1/36900	1/147600
NEB	Nemaline myopathy 2	Pan-ethnic	95	1/138	1/2740	1/10960
		African American/Black	93	1/148	1/2100	1/8400
		Latino/Admixed American	99	1/143	1/14200	1/56800
		Ashkenazi Jewish	99	1/183	1/18200	1/72800
		East Asian	98	1/73	1/3600	1/14400
		Finnish	99	1/186	1/18500	1/74000
		Non-Finnish European/White	92	1/146	1/1800	1/7200
		South Asian	98	1/130	1/6500	1/26000
NEU1	Sialidosis	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/446	1/44500	1/178000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	1/474	1/15800	1/63200
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
NGLY1	Congenital disorder of glycosylation type Iv	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
NHEJ1	Severe combined immunodeficiency due to Cernunnos/XLF deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
NIPAL4	Autosomal recessive congenital ichthyosis (NIPAL4-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/318	1/31700	1/126800
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
NONO	X-linked intellectual disability (NONO-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
NPC1	Niemann-Pick disease type C (NPC1-related)	Pan-ethnic	99	1/200	1/19900	1/79600
		African American/Black	99	1/358	1/35700	1/142800
		Latino/Admixed American	99	1/278	1/27700	1/110800
		Ashkenazi Jewish	97	1/303	1/10100	1/40400
		East Asian	99	1/284	1/28300	1/113200
		Finnish	98	1/360	1/18000	1/72000
		Non-Finnish European/White	99	1/184	1/18300	1/73200
		South Asian	99	1/270	1/26900	1/107600
NPC2	Niemann-Pick disease type C (NPC2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
NPHP1	Nephronophthisis (NPHP1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/314	1/31300	1/125200
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
NPHP3	Nephronophthisis (NPHP3-related)	Pan-ethnic	99	1/346	1/34500	1/138000
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	97	1/355	1/11800	1/47200
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/394	1/39300	1/157200
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	1/310	1/15500	1/62000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
NPHS1	Congenital nephrotic syndrome type 1	Pan-ethnic	99	1/200	1/19900	1/79600
		African American/Black	98	1/368	1/18400	1/73600
		Latino/Admixed American	99	1/312	1/31100	1/124400
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/383	1/38200	1/152800
		Finnish	97	1/45	1/1500	1/6000
		Non-Finnish European/White	99	1/218	1/21700	1/86800
		South Asian	98	1/260	1/13000	1/52000

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
NPHS2	Congenital nephrotic syndrome type 2	Pan-ethnic	99	1/327	1/32600	1/130400
		African American/Black	99	1/489	1/48800	1/195200
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/281	1/28000	1/112000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
NR0B1	NR0B1-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	97	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
NR2E3	NR2E3-related conditions	Pan-ethnic	99	1/264	1/26300	1/105200
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/286	1/28500	1/114000
		Ashkenazi Jewish	99	1/86	1/8500	1/34000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/250	1/24900	1/99600
		South Asian	99	1/360	1/35900	1/143600
NSMCE3	NSMCE3 deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
NTRK1	Congenital insensitivity to pain with anhidrosis	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	1/218	1/21700	1/86800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
OAT	Gyrate atrophy of the choroid and retina	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/158	1/15700	1/62800
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/464	1/46300	1/185200
OBSL1	3-M syndrome (OBSL1-related)	Pan-ethnic	99	1/334	1/33300	1/133200
		African American/Black	98	1/224	1/11200	1/44800
		Latino/Admixed American	99	1/323	1/32200	1/128800
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	1/275	1/9100	1/36400
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	1/360	1/18000	1/72000
		South Asian	97	1/180	1/6000	1/24000

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
OCA2	Oculocutaneous albinism type 2	Pan-ethnic	99	1/54	1/5300	1/21200
		African American/Black	98	1/31	1/1500	1/6000
		Latino/Admixed American	99	1/104	1/10300	1/41200
		Ashkenazi Jewish	99	1/98	1/9700	1/38800
		East Asian	99	1/225	1/22400	1/89600
		Finnish	99	1/389	1/38800	1/155200
		Non-Finnish European/White	99	1/48	1/4700	1/18800
		South Asian	99	1/248	1/24700	1/98800
OCRL	OCRL-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
ODAD3/ CCDC151	Primary ciliary dyskinesia (CCDC151-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
OPA3	OPA3-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
OPHN1	X-linked intellectual disability (OPHN1-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
OSTM1	OSTM1 deficiency associated osteopetrosis	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
OTC	Ornithine transcarbamylase deficiency	Pan-ethnic	85	N/A*	Reduced	Reduced
		African American/Black	85	N/A*	Reduced	Reduced
		Latino/Admixed American	85	N/A*	Reduced	Reduced
		Ashkenazi Jewish	85	N/A*	Reduced	Reduced
		East Asian	85	N/A*	Reduced	Reduced
		Finnish	85	N/A*	Reduced	Reduced
		Non-Finnish European/White	85	N/A*	Reduced	Reduced
		South Asian	85	N/A*	Reduced	Reduced

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
OTOA	Nonsyndromic deafness (OTOA-related)	Pan-ethnic	88	≤ 1/500	≤ 1/4159	≤ 1/16636
		African American/Black	88	≤ 1/500	≤ 1/4200	≤ 1/16800
		Latino/Admixed American	88	1/294	1/2400	1/9600
		Ashkenazi Jewish	88	≤ 1/500	≤ 1/4200	≤ 1/16800
		East Asian	88	≤ 1/500	≤ 1/4200	≤ 1/16800
		Finnish	88	≤ 1/500	≤ 1/4200	≤ 1/16800
		Non-Finnish European/White	88	≤ 1/500	≤ 1/4200	≤ 1/16800
		South Asian	88	≤ 1/500	≤ 1/4200	≤ 1/16800
OTOF	OTOF-related conditions	Pan-ethnic	99	1/270	1/26900	1/107600
		African American/Black	99	1/220	1/21900	1/87600
		Latino/Admixed American	99	1/254	1/25300	1/101200
		Ashkenazi Jewish	99	1/491	1/49000	1/196000
		East Asian	99	1/177	1/17600	1/70400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/254	1/25300	1/101200
		South Asian	99	1/419	1/41800	1/167200
P3H1	Osteogenesis imperfecta (P3H1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/163	1/16200	1/64800
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	1/481	1/24000	1/96000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PAH	Phenylalanine hydroxylase deficiency	Pan-ethnic	99	1/43	1/4200	1/16800
		African American/Black	99	1/134	1/13300	1/53200
		Latino/Admixed American	99	1/68	1/6700	1/26800
		Ashkenazi Jewish	99	1/18	1/1700	1/6800
		East Asian	99	1/72	1/7100	1/28400
		Finnish	99	1/166	1/16500	1/66000
		Non-Finnish European/White	99	1/40	1/3900	1/15600
		South Asian	99	1/70	1/6900	1/27600
PAK3	X-linked intellectual disability (PAK3-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
PANK2	Pantothenate kinase-associated neurodegeneration	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	1/417	1/20800	1/83200
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
PC	Pyruvate carboxylase deficiency	Pan-ethnic	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		African American/Black	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Latino/Admixed American	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Ashkenazi Jewish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		East Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Finnish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Non-Finnish European/White	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		South Asian	95	1/248	1/4900	1/19600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
PCBD1	Biopterin-deficient hyperphenylalaninemia (PCBD1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/302	1/30100	1/120400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PCCA	Propionic acidemia (PCCA-related)	Pan-ethnic	96	≤ 1/500	≤ 1/12475	≤ 1/49900
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	1/331	1/16500	1/66000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	98	1/421	1/21000	1/84000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/272	1/27100	1/108400
PCCB	Propionic acidemia (PCCB-related)	Pan-ethnic	99	1/424	1/42300	1/169200
		African American/Black	97	1/216	1/7200	1/28800
		Latino/Admixed American	97	1/405	1/13500	1/54000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/119	1/11800	1/47200
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	1/418	1/20900	1/83600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PCDH15	PCDH15-related conditions	Pan-ethnic	99	1/452	1/45100	1/180400
		African American/Black	98	1/364	1/18200	1/72800
		Latino/Admixed American	98	1/489	1/24400	1/97600
		Ashkenazi Jewish	99	1/115	1/11400	1/45600
		East Asian	97	1/322	1/10700	1/42800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	1/480	1/24000	1/96000
		South Asian	97	1/360	1/12000	1/48000
PCNT	Microcephalic osteodysplastic primordial dwarfism type II	Pan-ethnic	99	1/233	1/23200	1/92800
		African American/Black	99	1/148	1/14700	1/58800
		Latino/Admixed American	99	1/166	1/16500	1/66000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/311	1/31000	1/124000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/239	1/23800	1/95200
		South Asian	99	1/149	1/14800	1/59200
PDE6A	Retinitis pigmentosa 43	Pan-ethnic	99	1/466	1/46500	1/186000
		African American/Black	99	1/421	1/42000	1/168000
		Latino/Admixed American	99	1/408	1/40700	1/162800
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/439	1/43800	1/175200
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/466	1/46500	1/186000
		South Asian	99	1/279	1/27800	1/111200
PDHA1	Pyruvate dehydrogenase complex deficiency (PDHA1-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	97	N/A*	Reduced	Reduced
		Finnish	97	N/A*	Reduced	Reduced
		Non-Finnish European/White	97	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
PDHB	Pyruvate dehydrogenase complex deficiency (PDHB-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PDHX	Pyruvate dehydrogenase complex deficiency (PDHX-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
PDP1	Pyruvate dehydrogenase complex deficiency (PDP1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PEPD	Prolidase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PET100	Mitochondrial complex IV deficiency 12	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PEX1	Zellweger spectrum disorder (PEX1-related)	Pan-ethnic	99	1/206	1/20500	1/82000
		African American/Black	97	1/375	1/12500	1/50000
		Latino/Admixed American	98	1/307	1/15300	1/61200
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	1/228	1/11400	1/45600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	1/181	1/9000	1/36000
		South Asian	99	1/301	1/30000	1/120000
PEX10	Zellweger spectrum disorder (PEX10-related)	Pan-ethnic	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		African American/Black	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		Latino/Admixed American	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		Ashkenazi Jewish	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		East Asian	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		Finnish	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		Non-Finnish European/White	94	≤ 1/500	≤ 1/8300	≤ 1/33200
		South Asian	94	≤ 1/500	≤ 1/8300	≤ 1/33200

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
PEX11B	Zellweger spectrum disorder (PEX11B-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PEX12	Zellweger spectrum disorder (PEX12-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PEX13	Zellweger spectrum disorder (PEX13-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/492	1/49100	1/196400
PEX14	Zellweger spectrum disorder (PEX14-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
PEX16	Zellweger spectrum disorder (PEX16-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PEX19	Zellweger spectrum disorder (PEX19-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PEX2	Zellweger spectrum disorder (PEX2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	1/231	1/23000	1/92000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
PEX26	Zellweger spectrum disorder (PEX26-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
PEX3	Zellweger spectrum disorder (PEX3-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PEX5	PEX5-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	1/413	1/20600	1/82400
		Latino/Admixed American	98	1/246	1/12300	1/49200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PEX6	Zellweger spectrum disorder (PEX6-related)	Pan-ethnic	99	1/474	1/47300	1/189200
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	1/433	1/21600	1/86400
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
PEX7	PEX7-related conditions	Pan-ethnic	99	1/389	1/38800	1/155200
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/218	1/21700	1/86800
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/345	1/34400	1/137600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
PFKM	Glycogen storage disease type VII	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	98	1/98	1/4900	1/19600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PGK1	Phosphoglycerate kinase 1 deficiency	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
PGM3	PGM3-congenital disorder of glycosylation	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
PHF8	X-linked intellectual disability (PHF8-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
PHGDH	Phosphoglycerate dehydrogenase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/277	1/27600	1/110400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PHKA1	Glycogen storage disease type IXd	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	98	N/A*	Reduced	Reduced
PHKA2	Glycogen storage disease type IXa	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
PHKB	Glycogen storage disease type IXb	Pan-ethnic	99	1/383	1/38200	1/152800
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/355	1/35400	1/141600
		South Asian	99	1/292	1/29100	1/116400
PHKG2	Glycogen storage disease type IXc	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	1/478	1/15900	1/63600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
PHYH	Refsum disease (PHYH-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/190	1/18900	1/75600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PIGN	PIGN-congenital disorder of glycosylation	Pan-ethnic	99	1/331	1/33000	1/132000
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/235	1/23400	1/93600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/313	1/31200	1/124800
		South Asian	99	1/314	1/31300	1/125200
PIP5K1C	PIP5K1C-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PJK / DFNB59	PJK-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PKHD1	Polycystic kidney disease (PKHD1-related)	Pan-ethnic	99	1/96	1/9500	1/38000
		African American/Black	99	1/149	1/14800	1/59200
		Latino/Admixed American	98	1/153	1/7600	1/30400
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/70	1/6900	1/27600
		Finnish	99	1/38	1/3700	1/14800
		Non-Finnish European/White	99	1/98	1/9700	1/38800
		South Asian	99	1/70	1/6900	1/27600
PLA2G6	PLA2G6-related conditions	Pan-ethnic	99	1/401	1/40000	1/160000
		African American/Black	99	1/202	1/20100	1/80400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/203	1/20200	1/80800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/395	1/39400	1/157600
		South Asian	99	1/342	1/34100	1/136400
PLEKHG5	PLEKHG5-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	1/365	1/12100	1/48400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/488	1/48700	1/194800
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
PLOD1	Ehlers-Danlos syndrome, kyphoscoliotic type	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PLOD2	Bruck syndrome 2	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/222	1/22100	1/88400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
PLP1	PLP1-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
PMM2	Congenital disorder of glycosylation type Ia	Pan-ethnic	99	1/63	1/6200	1/24800
		African American/Black	99	1/187	1/18600	1/74400
		Latino/Admixed American	99	1/94	1/9300	1/37200
		Ashkenazi Jewish	99	1/66	1/6500	1/26000
		East Asian	99	1/204	1/20300	1/81200
		Finnish	99	1/60	1/5900	1/23600
		Non-Finnish European/White	99	1/56	1/5500	1/22000
		South Asian	99	1/291	1/29000	1/116000
PNP	Purine nucleoside phosphorylase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PNPLA1	Autosomal recessive congenital ichthyosis (PNPLA1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
PNPO	Pyridoxal 5'-phosphate-dependent epilepsy	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
POC1A	Short stature, onychodysplasia, facial dysmorphism, and hypotrichosis syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
POLG	POLG-related conditions	Pan-ethnic	95	1/69	1/1400	1/5600
		African American/Black	95	1/103	1/2000	1/8000
		Latino/Admixed American	95	1/181	1/3600	1/14400
		Ashkenazi Jewish	95	1/163	1/3200	1/12800
		East Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Finnish	95	1/64	1/1300	1/5200
		Non-Finnish European/White	95	1/61	1/1200	1/4800
		South Asian	95	1/222	1/4400	1/17600
POLH	Xeroderma pigmentosum, variant type	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	1/424	1/42300	1/169200
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
POLR1C	POLR1C-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/406	1/40500	1/162000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
POMGNT1	POMGNT1-related conditions	Pan-ethnic	99	1/440	1/43900	1/175600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	1/193	1/19200	1/76800
		Non-Finnish European/White	99	1/441	1/44000	1/176000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
POMT1	Muscular dystrophy-dystroglycanopathy (POMT1-related)	Pan-ethnic	99	1/398	1/39700	1/158800
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	1/303	1/15100	1/60400
		Ashkenazi Jewish	97	1/274	1/9100	1/36400
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	1/380	1/19000	1/76000
		South Asian	98	1/376	1/18800	1/75200
POMT2	Muscular dystrophy-dystroglycanopathy (POMT2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
POR	Cytochrome P450 oxidoreductase deficiency	Pan-ethnic	99	1/440	1/43900	1/175600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	1/383	1/19100	1/76400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/216	1/21500	1/86000
		Finnish	98	1/431	1/21500	1/86000
		Non-Finnish European/White	99	1/463	1/46200	1/184800
POU1F1	Combined pituitary hormone deficiency (POU1F1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
POU3F4	X-linked nonsyndromic deafness (POU3F4-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
PPIB	Osteogenesis imperfecta (PPIB-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
PPT1	Neuronal ceroid lipofuscinosis type 1	Pan-ethnic	98	1/379	1/18900	1/75600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/71	1/7000	1/28000
		Non-Finnish European/White	99	1/380	1/37900	1/151600
PQB1	Renpenning syndrome	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
PRCD	Retinitis pigmentosa 36	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
PRDM5	Brittle cornea syndrome (PRDM5-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PRF1	Familial hemophagocytic lymphohistiocytosis type 2	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	1/127	1/4200	1/16800
		Latino/Admixed American	99	1/274	1/27300	1/109200
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	1/267	1/26600	1/106400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	1/229	1/22800	1/91200
PRICKLE1	Progressive myoclonic epilepsy with ataxia	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PRKDC	Severe combined immunodeficiency due to DNA PKcs deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PROP1	Combined pituitary hormone deficiency (PROP1-related)	Pan-ethnic	98	≤ 1/500	≤ 1/24950	≤ 1/99800
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	1/352	1/35100	1/140400
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
PRPS1	PRPS1-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
PSAP	PSAP-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
PTPRC	Severe combined immunodeficiency due to CD45 deficiency	Pan-ethnic	98	≤ 1/500	≤ 1/24950	≤ 1/99800
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
PTS	Biotpterin-deficient hyperphenylalaninemia (PTS-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/265	1/26400	1/105600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
PUS1	Myopathy, lactic acidosis, and sideroblastic anemia 1	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
PYCR1	Cutis laxa type 2B	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
PYGL	Glycogen storage disease type VI	Pan-ethnic	95	1/496	1/9900	1/39600
		African American/Black	95	1/352	1/7000	1/28000
		Latino/Admixed American	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Ashkenazi Jewish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		East Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Finnish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Non-Finnish European/White	95	1/487	1/9700	1/38800
		South Asian	95	1/308	1/6100	1/24400
PYGM	Glycogen storage disease type V	Pan-ethnic	99	1/110	1/10900	1/43600
		African American/Black	99	1/273	1/27200	1/108800
		Latino/Admixed American	99	1/184	1/18300	1/73200
		Ashkenazi Jewish	99	1/148	1/14700	1/58800
		East Asian	99	1/251	1/25000	1/100000
		Finnish	99	1/440	1/43900	1/175600
		Non-Finnish European/White	99	1/95	1/9400	1/37600
		South Asian	98	1/319	1/15900	1/63600
QDPR	Biotpterin-deficient hyperphenylalaninemia (QDPR-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
RAB23	Carpenter syndrome (RAB23-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
RAG1	Severe combined immunodeficiency due to RAG1 deficiency	Pan-ethnic	99	1/428	1/42700	1/170800
		African American/Black	99	1/496	1/49500	1/198000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/399	1/39800	1/159200
		South Asian	99	1/466	1/46500	1/186000
RAG2	Severe combined immunodeficiency due to RAG2 deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
RAPSN	RAPSN-related conditions	Pan-ethnic	99	1/193	1/19200	1/76800
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/287	1/28600	1/114400
		Ashkenazi Jewish	99	1/253	1/25200	1/100800
		East Asian	98	1/425	1/21200	1/84800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/168	1/16700	1/66800
		South Asian	99	1/423	1/42200	1/168800
RARS2	Pontocerebellar hypoplasia type 6	Pan-ethnic	99	1/364	1/36300	1/145200
		African American/Black	98	1/283	1/14100	1/56400
		Latino/Admixed American	99	1/239	1/23800	1/95200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	1/357	1/17800	1/71200
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	1/354	1/17700	1/70800
		South Asian	99	1/400	1/39900	1/159600
RAX	Isolated microphthalmia	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
RD3	Leber congenital amaurosis 12	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
RDH12	RDH12-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/429	1/42800	1/171200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
RDH5	Fundus albipunctatus	Pan-ethnic	99	1/484	1/48300	1/193200
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/301	1/30000	1/120000
		Ashkenazi Jewish	99	1/369	1/36800	1/147200
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/474	1/47300	1/189200
RFX5	Major histocompatibility complex class II deficiency (RFX5-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	1/471	1/47000	1/188000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
RFXANK	Major histocompatibility complex class II deficiency (RFXANK-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
RFXAP	Major histocompatibility complex class II deficiency (RFXAP-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	97	1/391	1/13000	1/52000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
RHAG	RHAG-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
RLBP1	RLBP1-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
RMRP	Cartilage-hair hypoplasia-anauxetic dysplasia spectrum disorders	Pan-ethnic	99	1/225	1/22400	1/89600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	1/193	1/9600	1/38400
		Ashkenazi Jewish	99	1/67	1/6600	1/26400
		East Asian	99	1/293	1/29200	1/116800
		Finnish	99	1/52	1/5100	1/20400
		Non-Finnish European/White	99	1/335	1/33400	1/133600
		South Asian	99	1/470	1/46900	1/187600
RNASEH2A	Aicardi-Goutieres syndrome 4	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	1/294	1/9800	1/39200
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
RNASEH2B	Aicardi-Goutieres syndrome 2	Pan-ethnic	99	1/207	1/20600	1/82400
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/322	1/32100	1/128400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/177	1/17600	1/70400
		South Asian	99	1/285	1/28400	1/113600
RNASEH2C	Aicardi-Goutieres syndrome 3	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ROGDI	Kohlschutter syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
RP2	Retinitis pigmentosa 2	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	97	N/A*	Reduced	Reduced
RPE65	RPE65-related conditions	Pan-ethnic	99	1/407	1/40600	1/162400
		African American/Black	99	1/214	1/21300	1/85200
		Latino/Admixed American	98	1/200	1/10000	1/40000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/263	1/26200	1/104800
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	1/419	1/41800	1/167200
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
RPGR / RPGR (ORF15)	RPGR-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	97	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	97	N/A*	Reduced	Reduced
		South Asian	97	N/A*	Reduced	Reduced
RPGRI1	RPGRI1-related conditions	Pan-ethnic	99	1/375	1/37400	1/149600
		African American/Black	98	1/330	1/16500	1/66000
		Latino/Admixed American	98	1/281	1/14000	1/56000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	1/303	1/30200	1/120800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	1/400	1/20000	1/80000
		South Asian	98	1/201	1/10000	1/40000
RPGRI1L	Joubert syndrome and related disorders (RPGRI1L-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	1/258	1/12900	1/51600
		Latino/Admixed American	98	1/490	1/24500	1/98000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	1/216	1/10800	1/43200
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/494	1/49300	1/197200
		South Asian	98	1/458	1/22900	1/91600
RPS6KA3	RPS6KA3-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	97	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
RS1	X-linked juvenile retinoschisis	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	98	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
RSPH9	Primary ciliary dyskinesia (RSPH9-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
RTEL1	Dyskeratosis congenita spectrum disorders (RTEL1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/115	1/11400	1/45600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
RXYL1	Muscular dystrophy-dystroglycanopathy (RXYL1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/408	1/40700	1/162800
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
RYR1	RYR1-related conditions	Pan-ethnic	99	1/183	1/18200	1/72800
		African American/Black	99	1/188	1/18700	1/74800
		Latino/Admixed American	99	1/184	1/18300	1/73200
		Ashkenazi Jewish	99	1/125	1/12400	1/49600
		East Asian	99	1/163	1/16200	1/64800
		Finnish	99	1/220	1/21900	1/87600
		Non-Finnish European/White	99	1/182	1/18100	1/72400
		South Asian	99	1/203	1/20200	1/80800
SACS	Autosomal recessive spastic ataxia of Charlevoix-Saguenay	Pan-ethnic	99	1/320	1/31900	1/127600
		African American/Black	98	1/354	1/17700	1/70800
		Latino/Admixed American	98	1/396	1/19800	1/79200
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	1/429	1/21400	1/85600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	1/298	1/14900	1/59600
		South Asian	98	1/272	1/13600	1/54400
SAG	SAG-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/258	1/25700	1/102800
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/292	1/29100	1/116400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/404	1/40300	1/161200
SAMD9	SAMD9-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/357	1/35600	1/142400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/469	1/46800	1/187200
SAMHD1	Aicardi-Goutieres syndrome 5	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SARS2	SARS2-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
SCO1	Mitochondrial complex IV deficiency 4	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SCO2	Cardioencephalomyopathy	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	1/218	1/21700	1/86800
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	1/48	1/1600	1/6400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
SDCCAG8	SDCCAG8-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	1/472	1/23600	1/94400
SDR9C7	Autosomal recessive congenital ichthyosis (SDR9C7-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
SEC23B	Congenital dyserythropoietic anemia type II	Pan-ethnic	99	1/428	1/42700	1/170800
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/363	1/36200	1/144800
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/381	1/38000	1/152000
		South Asian	99	1/397	1/39600	1/158400
SELENON	SELENON-related conditions	Pan-ethnic	95	1/342	1/6800	1/27200
		African American/Black	95	1/296	1/5900	1/23600
		Latino/Admixed American	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Ashkenazi Jewish	95	1/395	1/7900	1/31600
		East Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Finnish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Non-Finnish European/White	95	1/301	1/6000	1/24000
		South Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
SEPSECS	Pontocerebellar hypoplasia type 2D	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	1/226	1/22500	1/90000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
SERPINA1	Alpha-1 antitrypsin deficiency	Pan-ethnic	99	1/9	1/800	1/3200
		African American/Black	99	1/44	1/4300	1/17200
		Latino/Admixed American	99	1/12	1/1100	1/4400
		Ashkenazi Jewish	99	1/19	1/1800	1/7200
		East Asian	99	1/461	1/46000	1/184000
		Finnish	99	1/19	1/1800	1/7200
		Non-Finnish European/White	99	1/8	1/700	1/2800
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SERPIN1	Osteogenesis imperfecta (SERPIN1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SGCA	Limb-girdle muscular dystrophy type 2D	Pan-ethnic	99	1/376	1/37500	1/150000
		African American/Black	99	1/361	1/36000	1/144000
		Latino/Admixed American	99	1/389	1/38800	1/155200
		Ashkenazi Jewish	99	1/260	1/25900	1/103600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/291	1/29000	1/116000
		Non-Finnish European/White	99	1/376	1/37500	1/150000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SGCB	Limb-girdle muscular dystrophy type 2E	Pan-ethnic	92	≤ 1/500	≤ 1/6200	≤ 1/24800
		African American/Black	92	≤ 1/500	≤ 1/6200	≤ 1/24800
		Latino/Admixed American	92	≤ 1/500	≤ 1/6200	≤ 1/24800
		Ashkenazi Jewish	92	1/426	1/5300	1/21200
		East Asian	92	≤ 1/500	≤ 1/6200	≤ 1/24800
		Finnish	92	≤ 1/500	≤ 1/6200	≤ 1/24800
		Non-Finnish European/White	92	≤ 1/500	≤ 1/6200	≤ 1/24800
		South Asian	92	≤ 1/500	≤ 1/6200	≤ 1/24800
SGCD	Limb-girdle muscular dystrophy type 2F	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
SGCG	Limb-girdle muscular dystrophy type 2C	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
SGSH	Mucopolysaccharidosis type IIIA	Pan-ethnic	99	1/227	1/22600	1/90400
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/405	1/40400	1/161600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/191	1/19000	1/76000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
SH3TC2	Charcot-Marie-Tooth disease type 4C	Pan-ethnic	99	1/275	1/27400	1/109600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/386	1/38500	1/154000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/247	1/24600	1/98400
		South Asian	99	1/324	1/32300	1/129200
SKIC2 / SKIV2L	Trichohepatoenteric syndrome (SKIV2L-related)	Pan-ethnic	99	1/416	1/41500	1/166000
		African American/Black	98	1/360	1/18000	1/72000
		Latino/Admixed American	98	1/310	1/15500	1/62000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/450	1/44900	1/179600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	1/383	1/19100	1/76400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SKIC3 / TTC37	Trichohepatoenteric syndrome (TTC37-related)	Pan-ethnic	99	1/461	1/46000	1/184000
		African American/Black	99	1/441	1/44000	1/176000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/475	1/47400	1/189600
		East Asian	99	1/290	1/28900	1/115600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	1/200	1/19900	1/79600
SLC12A1	Bartter syndrome type 1	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/272	1/27100	1/108400
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/368	1/36700	1/146800
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SLC12A3	Gitelman syndrome	Pan-ethnic	99	1/88	1/8700	1/34800
		African American/Black	99	1/162	1/16100	1/64400
		Latino/Admixed American	99	1/114	1/11300	1/45200
		Ashkenazi Jewish	99	1/102	1/10100	1/40400
		East Asian	99	1/24	1/2300	1/9200
		Finnish	99	1/391	1/39000	1/156000
		Non-Finnish European/White	99	1/86	1/8500	1/34000
		South Asian	99	1/173	1/17200	1/68800
SLC12A6	SLC12A6-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
SLC16A2	Allan-Herndon-Dudley syndrome	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
SLC17A5	Sialic acid storage diseases	Pan-ethnic	99	1/450	1/44900	1/179600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	1/105	1/10400	1/41600
		Non-Finnish European/White	99	1/492	1/49100	1/196400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SLC19A2	Thiamine-responsive megaloblastic anemia	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SLC19A3	Biotin-responsive basal ganglia disease	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/464	1/46300	1/185200
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SLC1A4	Spastic tetraplegia, thin corpus callosum, and progressive microcephaly	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/105	1/10400	1/41600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SLC22A5	Primary carnitine deficiency	Pan-ethnic	99	1/76	1/7500	1/30000
		African American/Black	99	1/259	1/25800	1/103200
		Latino/Admixed American	99	1/151	1/15000	1/60000
		Ashkenazi Jewish	99	1/287	1/28600	1/114400
		East Asian	99	1/95	1/9400	1/37600
		Finnish	99	1/242	1/24100	1/96400
		Non-Finnish European/White	99	1/73	1/7200	1/28800
		South Asian	99	1/48	1/4700	1/18800
SLC25A13	Citrin deficiency	Pan-ethnic	99	1/498	1/49700	1/198800
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	1/51	1/2500	1/10000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/304	1/30300	1/121200
SLC25A15	Hyperornithinemia-hyperammonemia-homocitrullinuria syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
SLC25A20	Carnitine-acylcarnitine translocase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SLC26A2	SLC26A2-related conditions	Pan-ethnic	95	1/185	1/3700	1/14800
		African American/Black	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Latino/Admixed American	95	1/217	1/4300	1/17200
		Ashkenazi Jewish	95	1/227	1/4500	1/18000
		East Asian	95	1/247	1/4900	1/19600
		Finnish	95	1/99	1/2000	1/8000
		Non-Finnish European/White	95	1/171	1/3400	1/13600
		South Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
SLC26A3	Congenital secretory chloride diarrhea	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/364	1/36300	1/145200
		Finnish	99	1/96	1/9500	1/38000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SLC26A4	SLC26A4-related conditions	Pan-ethnic	99	1/69	1/6800	1/27200
		African American/Black	99	1/151	1/15000	1/60000
		Latino/Admixed American	99	1/144	1/14300	1/57200
		Ashkenazi Jewish	99	1/72	1/7100	1/28400
		East Asian	99	1/52	1/5100	1/20400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/67	1/6600	1/26400
		South Asian	99	1/60	1/5900	1/23600
SLC27A4	Ichthyosis prematurity syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
SLC2A10	Arterial tortuosity syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
SLC2A2	Fanconi-Bickel syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
SLC34A3	Hypophosphatemia with rickets (SLC34A3-related)	Pan-ethnic	99	1/230	1/22900	1/91600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/420	1/41900	1/167600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/355	1/35400	1/141600
		Non-Finnish European/White	99	1/208	1/20700	1/82800
		South Asian	99	1/329	1/32800	1/131200
SLC35A3	Congenital disorder of glycosylation (SLC35A3-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/401	1/40000	1/160000
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
SLC37A4	SLC37A4-related conditions	Pan-ethnic	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		African American/Black	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Latino/Admixed American	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Ashkenazi Jewish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		East Asian	95	1/426	1/8500	1/34000
		Finnish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Non-Finnish European/White	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		South Asian	95	1/382	1/7600	1/30400
SLC38A8	Foveal hypoplasia (SLC38A8-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/418	1/41700	1/166800
		Ashkenazi Jewish	99	1/65	1/6400	1/25600
		East Asian	99	1/301	1/30000	1/120000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/403	1/40200	1/160800
SLC39A4	Acrodermatitis enteropathica	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	1/338	1/16900	1/67600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	97	1/222	1/7400	1/29600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SLC3A1	Cystinuria (SLC3A1-related)	Pan-ethnic	99	1/104	1/10300	1/41200
		African American/Black	99	1/219	1/21800	1/87200
		Latino/Admixed American	99	1/206	1/20500	1/82000
		Ashkenazi Jewish	99	1/38	1/3700	1/14800
		East Asian	99	1/359	1/35800	1/143200
		Finnish	99	1/273	1/27200	1/108800
		Non-Finnish European/White	99	1/94	1/9300	1/37200
		South Asian	99	1/293	1/29200	1/116800
SLC45A2	Oculocutaneous albinism type 4	Pan-ethnic	99	1/321	1/32000	1/128000
		African American/Black	99	1/354	1/35300	1/141200
		Latino/Admixed American	99	1/460	1/45900	1/183600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/458	1/45700	1/182800
		Finnish	99	1/239	1/23800	1/95200
		Non-Finnish European/White	99	1/291	1/29000	1/116000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
SLC46A1	Hereditary folate malabsorption	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SLC4A1	SLC4A1-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SLC4A11	Corneal dystrophy and perceptive deafness	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/420	1/41900	1/167600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SLC5A5	Thyroid dysmorphogenesis (SLC5A5-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/373	1/37200	1/148800
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SLC6A19	Hartnup disorder	Pan-ethnic	99	1/114	1/11300	1/45200
		African American/Black	99	1/253	1/25200	1/100800
		Latino/Admixed American	99	1/445	1/44400	1/177600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/257	1/25600	1/102400
		Non-Finnish European/White	99	1/96	1/9500	1/38000
		South Asian	99	1/445	1/44400	1/177600
SLC6A8	X-linked creatine transporter deficiency	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	97	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
SLC7A7	Lysinuric protein intolerance	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/392	1/39100	1/156400
		Finnish	99	1/116	1/11500	1/46000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
SLC7A9	Cystinuria (SLC7A9-related)	Pan-ethnic	94	1/75	1/1234	1/4936
		African American/Black	94	1/398	1/6600	1/26400
		Latino/Admixed American	94	1/337	1/5600	1/22400
		Ashkenazi Jewish	94	1/68	1/1100	1/4400
		East Asian	94	1/136	1/2300	1/9200
		Finnish	94	1/370	1/6200	1/24800
		Non-Finnish European/White	94	1/64	1/1100	1/4400
		South Asian	94	1/497	1/8300	1/33200
SMARCAL1	Schimke immuno-osseous dysplasia	Pan-ethnic	99	1/485	1/48400	1/193600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	1/224	1/22300	1/89200
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	1/448	1/22400	1/89600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
SMN1	Spinal muscular atrophy	Pan-ethnic	94	1/49	1/800	1/3200
		Ashkenazi Jewish	94	1/62	1/1017	1/4068
		Asian	93	1/50	1/701	1/2804
		African American/Black	91	1/59	1/342	1/1368
		Latino/Admixed American	94	1/48	1/784	1/3136
		Non-Finnish European/White	95	1/45	1/880	1/3520
SMPD1	Niemann-Pick disease types A and B	Pan-ethnic	95	1/320	1/6400	1/25600
		African American/Black	95	1/314	1/6300	1/25200
		Latino/Admixed American	95	1/250	1/5000	1/20000
		Ashkenazi Jewish	95	1/96	1/1900	1/7600
		East Asian	95	1/376	1/7500	1/30000
		Finnish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Non-Finnish European/White	95	1/331	1/6600	1/26400
		South Asian	95	1/253	1/5000	1/20000
SNAP29	Cerebral dysgenesis, neuropathy, ichthyosis, and keratoderma	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SNX10	SNX10 deficiency associated osteopetrosis	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SPI10	Hepatic veno-occlusive disease with immunodeficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/316	1/31500	1/126000

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Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
SPATA7	SPATA7-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SPG11	SPG11-related conditions	Pan-ethnic	99	1/212	1/21100	1/84400
		African American/Black	98	1/251	1/12500	1/50000
		Latino/Admixed American	97	1/263	1/8700	1/34800
		Ashkenazi Jewish	99	1/444	1/44300	1/177200
		East Asian	97	1/246	1/8200	1/32800
		Finnish	98	1/443	1/22100	1/88400
		Non-Finnish European/White	98	1/211	1/10500	1/42000
		South Asian	98	1/175	1/8700	1/34800
SPG21	Spastic paraplegia type 21	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
SPG7	SPG7-related conditions	Pan-ethnic	99	1/51	1/5000	1/20000
		African American/Black	99	1/137	1/13600	1/54400
		Latino/Admixed American	99	1/102	1/10100	1/40400
		Ashkenazi Jewish	99	1/202	1/20100	1/80400
		East Asian	99	1/366	1/36500	1/146000
		Finnish	99	1/187	1/18600	1/74400
		Non-Finnish European/White	99	1/44	1/4300	1/17200
		South Asian	99	1/103	1/10200	1/40800
SPINK5	Netherton syndrome	Pan-ethnic	99	1/294	1/29300	1/117200
		African American/Black	99	1/366	1/36500	1/146000
		Latino/Admixed American	99	1/190	1/18900	1/75600
		Ashkenazi Jewish	99	1/422	1/42100	1/168400
		East Asian	99	1/150	1/14900	1/59600
		Finnish	99	1/475	1/47400	1/189600
		Non-Finnish European/White	99	1/307	1/30600	1/122400
		South Asian	99	1/281	1/28000	1/112000
SPR	Sepiapterin reductase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SRD5A2	Steroid 5-alpha-reductase deficiency	Pan-ethnic	99	1/393	1/39200	1/156800
		African American/Black	99	1/308	1/30700	1/122800
		Latino/Admixed American	99	1/421	1/42000	1/168000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/74	1/7300	1/29200
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/458	1/45700	1/182800
		South Asian	99	1/201	1/20000	1/80000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
ST3GAL5	GM3 synthase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/443	1/44200	1/176800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
STAR	Lipoid congenital adrenal hyperplasia	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/419	1/41800	1/167200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/339	1/33800	1/135200
		Finnish	99	1/494	1/49300	1/197200
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
STK4	Combined immunodeficiency due to STK4 deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
STX11	Familial hemophagocytic lymphohistiocytosis type 4	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
STXBP2	Familial hemophagocytic lymphohistiocytosis type 5	Pan-ethnic	99	1/480	1/47900	1/191600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	97	1/185	1/6100	1/24400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/439	1/43800	1/175200
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SUCLA2	Mitochondrial DNA depletion syndrome-5	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/420	1/41900	1/167600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
SUMF1	Multiple sulfatase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/247	1/24600	1/98400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
SUOX	Sulfite oxidase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/463	1/46200	1/184800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
SURF1	SURF1-related conditions	Pan-ethnic	99	1/239	1/23800	1/95200
		African American/Black	98	1/280	1/14000	1/56000
		Latino/Admixed American	99	1/301	1/30000	1/120000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	1/218	1/10900	1/43600
		South Asian	98	1/298	1/14900	1/59600
SYN1	X-linked epilepsy with variable learning disabilities and behavior disorders	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
SYNE4	Nonsyndromic deafness (SYNE4-related)	Pan-ethnic	99	1/446	1/44500	1/178000
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	1/384	1/19200	1/76800
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
TFAFAZZIN / TAZ	Barth syndrome	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
TANGO2	Metabolic crises with rhabdomyolysis, cardiac arrhythmias and neurodegeneration	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TAT	Tyrosinemia type II	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
TBCD	Progressive early-onset encephalopathy with brain atrophy and thin corpus callosum (PEBAT)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/389	1/38800	1/155200
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TBCE	TBCE-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TBX19	Isolated adrenocorticotrophic hormone deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/290	1/28900	1/115600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TCIRG1	TCIRG1-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	1/305	1/30400	1/121600
		Ashkenazi Jewish	99	1/342	1/34100	1/136400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/313	1/31200	1/124800
TCN2	Transcobalamin II deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TCTN1	Joubert syndrome and related disorders (TCTN1-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	1/363	1/18100	1/72400
TCTN2	Joubert syndrome and related disorders (TCTN2-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	1/404	1/13400	1/53600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
TCTN3	TCTN3-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
TECPR2	Spastic paraplegia type 49	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	1/139	1/4600	1/18400
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
TERT	Dyskeratosis congenita spectrum disorders (TERT-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TF	Atransferrinemia	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TFR2	Hereditary hemochromatosis type 3	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/400	1/39900	1/159600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TG	Thyroid dysmorphogenesis (TG-related)	Pan-ethnic	99	1/212	1/21100	1/84400
		African American/Black	99	1/121	1/12000	1/48000
		Latino/Admixed American	99	1/213	1/21200	1/84800
		Ashkenazi Jewish	99	1/146	1/14500	1/58000
		East Asian	99	1/235	1/23400	1/93600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/224	1/22300	1/89200
		South Asian	99	1/309	1/30800	1/123200
TGM1	Autosomal recessive congenital ichthyosis (TGM1-related)	Pan-ethnic	95	1/254	1/5100	1/20400
		African American/Black	95	1/273	1/5400	1/21600
		Latino/Admixed American	95	1/369	1/7400	1/29600
		Ashkenazi Jewish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		East Asian	95	1/295	1/5900	1/23600
		Finnish	95	1/182	1/3600	1/14400
		Non-Finnish European/White	95	1/237	1/4700	1/18800
		South Asian	95	1/371	1/7400	1/29600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
TH	Tyrosine hydroxylase deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/316	1/31500	1/126000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
THOC2	X-linked intellectual disability (THOC2-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
TK2	Mitochondrial DNA depletion syndrome-2	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/277	1/27600	1/110400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/261	1/26000	1/104000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
TMC1	Nonsyndromic deafness (TMC1-related)	Pan-ethnic	99	1/271	1/27000	1/108000
		African American/Black	99	1/403	1/40200	1/160800
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/363	1/36200	1/144800
		Finnish	99	1/100	1/9900	1/39600
		Non-Finnish European/White	99	1/281	1/28000	1/112000
		South Asian	99	1/479	1/47800	1/191200
TMEM138	Joubert syndrome and related disorders (TMEM138-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TMEM216	Joubert syndrome and related disorders (TMEM216-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/98	1/9700	1/38800
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TMEM231	Joubert syndrome and related disorders (TMEM231-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
TMEM237	Joubert syndrome and related disorders (TMEM237-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TMEM38B	Osteogenesis imperfecta (TMEM38B-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TMEM67	TMEM67-related conditions	Pan-ethnic	99	1/261	1/26000	1/104000
African American/Black		98	1/433	1/21600	1/86400	
Latino/Admixed American		99	≤ 1/500	≤ 1/49900	≤ 1/199600	
Ashkenazi Jewish		99	1/155	1/15400	1/61600	
East Asian		98	1/230	1/11500	1/46000	
Finnish		99	≤ 1/500	≤ 1/49900	≤ 1/199600	
Non-Finnish European/White		99	1/240	1/23900	1/95600	
South Asian		98	1/268	1/13400	1/53600	
TMEM70	ATP synthase deficiency (TMEM70-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
TMPRSS3	Nonsyndromic deafness (TMPRSS3-related)	Pan-ethnic	99	1/87	1/8600	1/34400
		African American/Black	99	1/295	1/29400	1/117600
		Latino/Admixed American	99	1/157	1/15600	1/62400
		Ashkenazi Jewish	99	1/113	1/11200	1/44800
		East Asian	99	1/245	1/24400	1/97600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/75	1/7400	1/29600
		South Asian	99	1/243	1/24200	1/96800
TNFSF11	TNFSF11 deficiency associated osteopetrosis	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TNXB	Ehlers-Danlos syndrome due to tenascin-X deficiency	Pan-ethnic	70	1/359	1/1200	1/4800
		African American/Black	70	1/386	1/1300	1/5200
		Latino/Admixed American	70	1/407	1/1400	1/5600
		Ashkenazi Jewish	70	1/202	1/700	1/2800
		East Asian	70	1/231	1/800	1/3200
		Finnish	70	1/414	1/1400	1/5600
		Non-Finnish European/White	70	1/378	1/1300	1/5200
		South Asian	70	1/232	1/800	1/3200

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
TPO	Thyroid dysmorphogenesis (TPO-related)	Pan-ethnic	99	1/230	1/22900	1/91600
		African American/Black	99	1/279	1/27800	1/111200
		Latino/Admixed American	99	1/233	1/23200	1/92800
		Ashkenazi Jewish	99	1/258	1/25700	1/102800
		East Asian	99	1/228	1/22700	1/90800
		Finnish	99	1/163	1/16200	1/64800
		Non-Finnish European/White	99	1/227	1/22600	1/90400
		South Asian	99	1/299	1/29800	1/119200
TPP1	Neuronal ceroid lipofuscinosis type 2	Pan-ethnic	97	1/216	1/7167	1/28668
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	1/426	1/42500	1/170000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	1/406	1/20300	1/81200
		Non-Finnish European/White	99	1/181	1/18000	1/72000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TRAPPC11	Limb-girdle muscular dystrophy type 2S	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	1/411	1/41000	1/164000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	1/374	1/37300	1/149200
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
TRDN	Triadin knockout syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/327	1/32600	1/130400
		Latino/Admixed American	99	1/346	1/34500	1/138000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/412	1/41100	1/164400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/218	1/21700	1/86800
TRES1	TRES1-related conditions	Pan-ethnic	99	1/490	1/48900	1/195600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/479	1/47800	1/191200
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/476	1/47500	1/190000
		South Asian	99	1/286	1/28500	1/114000
TRHR	Congenital hypothyroidism (TRHR-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TRIM32	TRIM32-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
TRIM37	Mulibrey nanism	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/63	1/6200	1/24800
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TRMU	Transient infantile liver failure	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	1/309	1/15400	1/61600
TRPM6	Hypomagnesemia and secondary hypocalcemia	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TSEN2	Pontocerebellar hypoplasia type 2B	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
TSEN54	Pontocerebellar hypoplasia (TSEN54-related)	Pan-ethnic	99	1/276	1/27500	1/110000
		African American/Black	99	1/416	1/41500	1/166000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/242	1/24100	1/96400
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
TSFM	Combined oxidative phosphorylation deficiency 3	Pan-ethnic	93	≤ 1/500	≤ 1/7100	≤ 1/28400
		African American/Black	93	≤ 1/500	≤ 1/7100	≤ 1/28400
		Latino/Admixed American	93	≤ 1/500	≤ 1/7100	≤ 1/28400
		Ashkenazi Jewish	93	≤ 1/500	≤ 1/7100	≤ 1/28400
		East Asian	93	≤ 1/500	≤ 1/7100	≤ 1/28400
		Finnish	93	1/38	1/500	1/2000
		Non-Finnish European/White	93	≤ 1/500	≤ 1/7100	≤ 1/28400
		South Asian	93	≤ 1/500	≤ 1/7100	≤ 1/28400
TSHB	Congenital hypothyroidism (TSHB-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
TSHR	TSHR-related conditions	Pan-ethnic	99	1/417	1/41600	1/166400
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/138	1/13700	1/54800
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/391	1/39000	1/156000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TTC7A	Gastrointestinal defects and immunodeficiency syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TTC8	TTC8-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
TTPA	Ataxia with vitamin E deficiency	Pan-ethnic	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		African American/Black	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		Latino/Admixed American	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		Ashkenazi Jewish	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		East Asian	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		Finnish	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		Non-Finnish European/White	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		South Asian	90	≤ 1/500	≤ 1/5000	≤ 1/20000
TULP1	TULP1-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	1/188	1/6200	1/24800
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
TYMP	Mitochondrial neurogastrointestinal encephalomyopathy	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/364	1/36300	1/145200
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	1/489	1/48800	1/195200
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
TYR	Oculocutaneous albinism types 1A and 1B	Pan-ethnic	97	1/23	1/734	1/2936
		African American/Black	99	1/64	1/6300	1/25200
		Latino/Admixed American	99	1/20	1/1900	1/7600
		Ashkenazi Jewish	99	1/16	1/1500	1/6000
		East Asian	99	1/129	1/12800	1/51200
		Finnish	99	1/32	1/3100	1/12400
		Non-Finnish European/White	99	1/17	1/1600	1/6400
		South Asian	99	1/65	1/6400	1/25600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
TYRP1	Oculocutaneous albinism type 3	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	1/70	1/6900	1/27600
		Latino/Admixed American	99	1/328	1/32700	1/130800
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
UBR1	Johanson-Blizzard syndrome	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
UNC13D	Familial hemophagocytic lymphohistiocytosis type 3	Pan-ethnic	93	1/290	1/4100	1/16400
		African American/Black	93	≤ 1/500	≤ 1/7100	≤ 1/28400
		Latino/Admixed American	93	≤ 1/500	≤ 1/7100	≤ 1/28400
		Ashkenazi Jewish	93	≤ 1/500	≤ 1/7100	≤ 1/28400
		East Asian	93	1/360	1/5100	1/20400
		Finnish	93	≤ 1/500	≤ 1/7100	≤ 1/28400
		Non-Finnish European/White	93	1/248	1/3500	1/14000
		South Asian	93	1/347	1/4900	1/19600
UNG	Hyper-IgM immunodeficiency (UNG-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
UPF3B	X-linked intellectual disability (UPF3B-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
USH1C	USH1C-related conditions	Pan-ethnic	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		African American/Black	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		Latino/Admixed American	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		Ashkenazi Jewish	90	1/228	1/2300	1/9200
		East Asian	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		Finnish	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		Non-Finnish European/White	90	≤ 1/500	≤ 1/5000	≤ 1/20000
		South Asian	90	≤ 1/500	≤ 1/5000	≤ 1/20000
USH1G	Usher syndrome type 1G	Pan-ethnic	85	≤ 1/500	≤ 1/3300	≤ 1/13200
		African American/Black	85	≤ 1/500	≤ 1/3300	≤ 1/13200
		Latino/Admixed American	85	≤ 1/500	≤ 1/3300	≤ 1/13200
		Ashkenazi Jewish	85	≤ 1/500	≤ 1/3300	≤ 1/13200
		East Asian	85	≤ 1/500	≤ 1/3300	≤ 1/13200
		Finnish	85	≤ 1/500	≤ 1/3300	≤ 1/13200
		Non-Finnish European/White	85	≤ 1/500	≤ 1/3300	≤ 1/13200
		South Asian	85	≤ 1/500	≤ 1/3300	≤ 1/13200

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
USH2A	USH2A-related conditions	Pan-ethnic	99	1/50	1/4900	1/19600
		African American/Black	98	1/74	1/3700	1/14800
		Latino/Admixed American	99	1/47	1/4600	1/18400
		Ashkenazi Jewish	99	1/37	1/3600	1/14400
		East Asian	99	1/50	1/4900	1/19600
		Finnish	98	1/133	1/6600	1/26400
		Non-Finnish European/White	99	1/46	1/4500	1/18000
		South Asian	99	1/73	1/7200	1/28800
VDR	Vitamin D-dependent rickets type 2A	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
VLDLR	Cerebellar ataxia, intellectual disability, and dysequilibrium syndrome 1	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
VPS11	Hypomyelinating leukodystrophy-12	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	1/207	1/20600	1/82400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
VPS13A	Chorea-acanthocytosis	Pan-ethnic	97	1/329	1/10934	1/43736
		African American/Black	98	1/295	1/14700	1/58800
		Latino/Admixed American	98	1/181	1/9000	1/36000
		Ashkenazi Jewish	97	1/272	1/9000	1/36000
		East Asian	98	1/431	1/21500	1/86000
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	1/374	1/18700	1/74800
		South Asian	98	1/241	1/12000	1/48000
VPS13B	Cohen syndrome	Pan-ethnic	99	1/180	1/17900	1/71600
		African American/Black	99	1/192	1/19100	1/76400
		Latino/Admixed American	99	1/135	1/13400	1/53600
		Ashkenazi Jewish	97	1/119	1/3900	1/15600
		East Asian	99	1/136	1/13500	1/54000
		Finnish	97	1/92	1/3000	1/12000
		Non-Finnish European/White	98	1/202	1/10100	1/40400
		South Asian	98	1/101	1/5000	1/20000
VPS45	Severe congenital neutropenia due to VPS45 deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
VPS53	VPS53-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
VRK1	VRK1-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Latino/Admixed American	99	1/235	1/23400	1/93600
		Ashkenazi Jewish	99	1/225	1/22400	1/89600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
VSX2	VSX2-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
WAS	WAS-related conditions	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
WHRN	WHRN-related conditions	Pan-ethnic	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		African American/Black	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Latino/Admixed American	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Ashkenazi Jewish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		East Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Finnish	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		Non-Finnish European/White	95	≤ 1/500	≤ 1/10000	≤ 1/40000
		South Asian	95	≤ 1/500	≤ 1/10000	≤ 1/40000
WNT1	WNT1-related conditions	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
WNT10A	WNT10A-related conditions	Pan-ethnic	99	1/22	1/2100	1/8400
		African American/Black	99	1/111	1/11000	1/44000
		Latino/Admixed American	99	1/39	1/3800	1/15200
		Ashkenazi Jewish	99	1/14	1/1300	1/5200
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	99	1/95	1/9400	1/37600
		Non-Finnish European/White	99	1/18	1/1700	1/6800
		South Asian	99	1/178	1/17700	1/70800

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
WRN	Werner syndrome	Pan-ethnic	99	1/408	1/40700	1/162800
		African American/Black	98	1/425	1/21200	1/84800
		Latino/Admixed American	98	1/339	1/16900	1/67600
		Ashkenazi Jewish	99	1/328	1/32700	1/130800
		East Asian	98	1/148	1/7400	1/29600
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	98	1/408	1/20400	1/81600
		South Asian	98	1/359	1/17900	1/71600
XPA	Xeroderma pigmentosum complementation group A	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	98	1/418	1/20900	1/83600
		Finnish	99	1/164	1/16300	1/65200
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
XPC	Xeroderma pigmentosum complementation group C	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Finnish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ZAP70	Severe combined immunodeficiency due to ZAP70 deficiency	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	≤ 1/500	≤ 1/49900	≤ 1/199600
ZBTB24	Immunodeficiency-centromeric instability-facial anomalies syndrome 2	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Finnish	99	1/384	1/38300	1/153200
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
ZDHC9	X-linked intellectual disability (ZDHC9-related)	Pan-ethnic	99	N/A*	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced
ZFYE26	Spastic paraplegia type 15	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Latino/Admixed American	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Ashkenazi Jewish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		East Asian	99	1/426	1/42500	1/170000
		Finnish	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		Non-Finnish European/White	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		South Asian	99	1/462	1/46100	1/184400

*Carrier frequencies for X-linked disorders were not calculated.

Gene	Disorder	Ethnicity	Assay Detection Rate (%)	Individual Carrier Risk	Individual Residual Risk After Negative Result	Risk of Affected Fetus When One Partner has a Carrier Result and One Partner has a Negative Result
ZNF469	Brittle cornea syndrome (ZNF469-related)	Pan-ethnic	99	≤ 1/500	≤ 1/49900	≤ 1/199600
		African American/Black	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Latino/Admixed American	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		Ashkenazi Jewish	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		East Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
		Finnish	99	1/97	1/9600	1/38400
		Non-Finnish European/White	98	≤ 1/500	≤ 1/25000	≤ 1/100000
		South Asian	97	≤ 1/500	≤ 1/16600	≤ 1/66400
Carrier frequencies for X-linked disorders were not calculated. ZNF711	X-linked intellectual disability (ZNF711-related)	Pan-ethnic	99	N/A	Reduced	Reduced
		African American/Black	99	N/A*	Reduced	Reduced
		Latino/Admixed American	99	N/A*	Reduced	Reduced
		Ashkenazi Jewish	99	N/A*	Reduced	Reduced
		East Asian	99	N/A*	Reduced	Reduced
		Finnish	99	N/A*	Reduced	Reduced
		Non-Finnish European/White	99	N/A*	Reduced	Reduced
		South Asian	99	N/A*	Reduced	Reduced