

## GENETIC TESTING FOR DONORS-RECIPIENTS

500 GENES TESTED

GENE	Disorder	SPECIFICATIONS
AAAS	Achalasia-Addisonianism-Alacrimia Syndrome	
ABCA12	Ichthyosis, Congenital, Autosomal Recessive 4B (Harlequin)	
ABCA3	Surfactant Metabolism Dysfunction, Pulmonary, 3	
ABCA4	Cone-Rod Dystrophy 3 • Fundus Flavimaculatus • Retinal Dystrophy, Early-Onset Severe • Retinitis Pigmentosa 19 • Stargardt Disease 1	
ABCB11	Cholestasis, Benign Recurrent Intrahepatic, 2 • Cholestasis, Progressive Familial Intrahepatic 2	
ABCB4	Cholestasis, Intrahepatic, of Pregnancy, 3 • Cholestasis, Progressive Familial Intrahepatic 3 • Gallbladder Disease 1	
ABCC6	Arterial Calcification, Generalized, of Infancy, 2 • Pseudoxanthoma Elasticum	
ABCC8	Hyperinsulinemic Hypoglycemia, Familial, 1, • Diabetes Mellitus, Permanent Neonatal 3, with or without Neurologic Features	
ABCD1	Adrenoleukodystrophy • Adrenomyeloneuropathy, Adult	◆
ACAD9	Mitochondrial Complex I Deficiency, Nuclear Type 20	
ACADM	Acyl-CoA Dehydrogenase, Medium Chain, Deficiency of	
ACADS	Acyl-CoA Dehydrogenase, Short-Chain, Deficiency of	
ACADSB	2-Methylbutyrylglycinuria	
ACADVL	Very Long-Chain Acyl-CoA Dehydrogenase Deficiency	
ACAT1	Alpha-Methylacetoacetic Aciduria	
ACOX1	Peroxisomal Acyl-CoA Oxidase Deficiency	
ACSF3	Combined Malonic and Methylmalonic Acidemia	
ADA	Adenosine Deaminase Deficiency, Partial • Severe Combined Immunodeficiency due to ADA Deficiency	
ADAMTS2	Ehlers-Danlos Syndrome, Dermatosparaxis Type	
ADGRG1	Polymicrogyria, Bilateral Frontoparietal	
AGA	Aspartylglucosaminuria	
AGL	Glycogen Storage Disease IIIa • Glycogen Storage Disease IIIb	
AGPS	Rhizomelic Chondrodysplasia Punctata, Type 3	
AGXT	Hyperoxaluria, Primary, Type 1	
AHI1	Joubert Syndrome 3	
AIRE	Autoimmune Polyendocrinopathy Syndrome, Type I, with or without Reversible Metaphyseal Dysplasia	
ALDH3A2	Sjogren-Larsson Syndrome	
ALDH6A1	Methylmalonate Semialdehyde Dehydrogenase Deficiency	
ALDH7A1	Epilepsy, Pyridoxine-Dependent	
ALDOA	Glycogen Storage Disease XII	
ALDOB	Fructose Intolerance, Hereditary	
ALG11	Congenital Disorder of Glycosylation, Type I <sub>p</sub>	
ALG12	Congenital Disorder of Glycosylation, Type I <sub>g</sub>	
ALG2	Congenital Disorder of Glycosylation, Type I <sub>i</sub> • Myasthenic Syndrome, Congenital, 14, with Tubular Aggregates	
ALG3	Congenital Disorder of Glycosylation, Type I <sub>d</sub>	
ALG6	Congenital Disorder of Glycosylation, Type I <sub>c</sub>	
ALG9	Congenital Disorder of Glycosylation, Type II • Gillissen-Kaesbach-Nishimura Syndrome	
ALMS1	Alstrom Syndrome	
ALPL	Hypophosphatasia, Adult • Hypophosphatasia, Childhood • Hypophosphatasia, Infantile • Odontohypophosphatasia	
AMACR	Alpha-Methylacyl-CoA Racemase Deficiency • Bile Acid Synthesis Defect, Congenital, 4	
AMH	Persistent Mullerian Duct Syndrome, Type I	

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AMHR2	Persistent Mullerian Duct Syndrome, Type II	
AMT	Glycine Encephalopathy 2	
ANO10	Spinocerebellar Ataxia, Autosomal Recessive 10	
AP1S1	MEDNIK Syndrome	
AQP2	Diabetes Insipidus, Nephrogenic, 2	
AR	Androgen Insensitivity, • Hypospadias 1 • Spinal and Bulbar Muscular Atrophy of Kennedy	◆
ARG1	Argininemia	
ARSA	Metachromatic Leukodystrophy	
ARSB	Mucopolysaccharidosis Type VI (Maroteaux-Lamy)	
ASL	Argininosuccinic Aciduria	
ASNS	Asparagine Synthetase Deficiency	
ASPA	Canavan Disease	
ASS1	Citrullinemia	
ATM	Ataxia Telangiectasia	
ATP6V1B1	Distal Renal Tubular Acidosis 2 with Progressive Sensorineural Hearing Loss	
ATP7A	Menkes Disease, • Occipital Horn Syndrome, • Spinal Muscular Atrophy, Distal, 3	◆
ATP7B	Wilson Disease	
ATP8B1	Cholestasis, Benign Recurrent Intrahepatic • Cholestasis, Progressive Familial Intrahepatic 1	
ATRX	Intellectual Disability-Hypotonic Facies Syndrome	◆
AUH	3-Methylglutaconic Aciduria, Type I	
B4GALT1	Combined low LDL and Fibrinogen • Congenital Disorder of Glycosylation, Type Iid	
BBS1	Bardet-Biedl Syndrome 1	
BBS10	Bardet-Biedl Syndrome 10	
BBS12	Bardet-Biedl Syndrome 12	
BBS2	Bardet-Biedl Syndrome 2	
BBS4	Bardet-Biedl Syndrome 4	
BBS9	Bardet-Biedl Syndrome 9	
BCHE	Butyrylcholinesterase Deficiency	
BCKDHA	Maple Syrup Urine Disease, Type Ia	
BCKDHB	Maple Syrup Urine Disease, Type Ib	
BCS1L	Bjornstad Syndrome • GRACILE Syndrome • Mitochondrial Complex III Deficiency, Nuclear Type 1	
BLM	Bloom Syndrome	
BRIP1	Fanconi Anemia, Complementation Group J	
BSND	Bartter Syndrome, Type 4A • Sensorineural Deafness with Mild Renal Dysfunction	
BTD	Biotinidase Deficiency	
BTK	Agammaglobulinemia, 1 • Isolated Growth Hormone Deficiency, Type III, with Agammaglobulinemia	◆
CAD	Developmental and Epileptic Encephalopathy 50	
CANT1	Desbuquois Dysplasia 1 • Epiphyseal Dysplasia, Multiple, 7	
CAPN3	Muscular Dystrophy, Limb-Girdle, Autosomal Recessive 1	
CASQ2	Ventricular Tachycardia, Catecholaminergic Polymorphic, 2	
CBS	Homocystinuria due to Cystathionine Beta-Synthase Deficiency	
CC2D1A	Intellectual Developmental Disorder, Autosomal Recessive 3	
CCDC115	Congenital Disorder of Glycosylation, Type Iio	
CCDC88C	Hydrocephalus, Congenital, 1	
CCN6	Progressive Pseudorheumatoid Dysplasia	
CD320	Methylmalonic Aciduria, Transient, due to Transcobalamin Receptor Defect	

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CDH23	Deafness, Autosomal Recessive 12 • Usher Syndrome, Type 1D • Usher Syndrome, Type 1D/F Digenic	
CEP290	Joubert Syndrome 5 • Meckel Syndrome 4 • Senior-Loken Syndrome 6	
CERKL	Retinitis Pigmentosa 26	
CFTR	Cystic Fibrosis	
CHM	Choroideremia	◆
CHRNE	Myasthenic Syndrome, Congenital, 4A, Slow-Channel • Myasthenic Syndrome, Congenital, 4B, Fast-Channel • Myasthenic Syndrome, Congenital, 4C, associated with Acetylcholine Receptor Deficiency	
CHRNA3	Escobar Syndrome • Multiple Pterygium Syndrome, Lethal Type	
CIITA	Bare Lymphocyte Syndrome, Type II, Complementation Group A	
CLCN1	Myotonia Congenita, Recessive	
CLN3	Ceroid Lipofuscinosis, Neuronal, 3	
CLN5	Ceroid Lipofuscinosis, Neuronal, 5	
CLN6	Ceroid Lipofuscinosis, Neuronal, 6A • Ceroid Lipofuscinosis, Neuronal, 6B (Kufs Type)	
CLN8	Ceroid Lipofuscinosis, Neuronal, 8 • Ceroid Lipofuscinosis, Neuronal, 8, Northern Epilepsy Variant	
CLRN1	Usher Syndrome, Type 3A	
CNGA3	Achromatopsia 2	
CNGB3	Achromatopsia 3	
COG1	Congenital Disorder of Glycosylation, Type IIg	
COL11A2	Deafness, Autosomal Recessive 53 • Fibrochondrogenesis 2 • Otospondylomegapiphyseal Dysplasia, Autosomal Recessive	
COL4A3	Alport Syndrome 2, COL4A3-Related	
COL4A4	Alport Syndrome 2, COL4A4-Related	
COL4A5	Alport Syndrome 1	◆
COL7A1	Epidermolysis Bullosa Dystrophica Inversa • Epidermolysis Bullosa Dystrophica, Autosomal Recessive • Epidermolysis Bullosa Dystrophica, Localisata Variant • Epidermolysis Bullosa Pruriginosa • Epidermolysis Bullosa, Pretibial • Transient Bullous of the Newborn	
CPS1	Carbamoylphosphate Synthetase I Deficiency	
CPT1A	CPT Deficiency, Hepatic, Type IA	
CPT2	CPT II Deficiency, Infantile • CPT II Deficiency, Lethal Neonatal • CPT II Deficiency, Myopathic, Stress-Induced	
CRB1	Leber Congenital Amaurosis 8 • Retinitis Pigmentosa-12	
CTNS	Cystinosis, Atypical Nephropathic • Cystinosis, Late-Onset Juvenile or Adolescent Nephropathic • Cystinosis, Nephropathic • Cystinosis, Ocular Nonnephropathic	
CTSA	Galactosialidosis	
CTSC	Haim-Munk Syndrome • Papillon-Lefevre Syndrome • Periodontitis 1, Juvenile	
CTSD	Ceroid Lipofuscinosis, Neuronal, 10	
CTSK	Pycnodysostosis	
CYBA	Chronic Granulomatous Disease 4, Autosomal Recessive	
CYBB	Chronic Granulomatous Disease • Immunodeficiency 34, Mycobacteriosis	◆
CYP11A1	Adrenal Insufficiency, Congenital, with 46 XY Sex Reversal, Partial or Complete	
CYP11B1	Adrenal Hyperplasia, Congenital, due to 11-Beta-Hydroxylase Deficiency	
CYP11B2	Hypoadosteronism, Congenital, due to CMO I Deficiency • Hypoadosteronism, Congenital, due to CMO II Deficiency	
CYP17A1	17,20-Lyase Deficiency, Isolated • 17-Alpha-Hydroxylase • 17,20-Lyase Deficiency	
CYP19A1	Aromatase Deficiency	
CYP1B1	Anterior Segment Dysgenesis 6, Multiple Subtypes • Glaucoma 3A, Primary Open Angle, Congenital, Juvenile, or Adult Onset	
CYP21A2	Adrenal Hyperplasia, Congenital, due to 21-Hydroxylase Deficiency • Hyperandrogenism, Nonclassic Type, due to 21-Hydroxylase Deficiency	
CYP27A1	Cerebrotendinous Xanthomatosis	
CYP27B1	Vitamin D-Dependent Rickets, Type I	
DBT	Maple Syrup Urine Disease, Type II	

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<i>DCLRE1C</i>	Omenn Syndrome • Severe Combined Immunodeficiency, Athabascan Type	
<i>DDB2</i>	Xeroderma Pigmentosum, Group E, DDB-Negative Subtype	
<i>DDOST</i>	Congenital Disorder of Glycosylation, Type Ir	
<i>DHCR7</i>	Smith-Lemli-Opitz Syndrome	
<i>DHDDS</i>	Retinitis Pigmentosa 59	
<i>DKC1</i>	Dyskeratosis Congenital	◆
<i>DLD</i>	Dihydrolipoamide Dehydrogenase Deficiency	
<i>DMD</i>	Duchenne Muscular Dystrophy • Becker Muscular Dystrophy	◆ ■
<i>DNAH5</i>	Ciliary Dyskinesia, Primary, 3, with or without Situs Inversus	
<i>DNAI1</i>	Ciliary Dyskinesia, Primary, 1, with or without Situs Inversus	
<i>DNAI2</i>	Ciliary Dyskinesia, Primary, 9, with or without Situs Inversus	
<i>DNAJC12</i>	Hyperphenylalaninemia, Mild, Non-BH4-Deficient	
<i>DNAJC19</i>	3-Methylglutaconic Aciduria, Type V	
<i>DNAL1</i>	Ciliary Dyskinesia, Primary, 16	
<i>DOK7</i>	Fetal Akinesia Deformation Sequence 3 • Myasthenic Syndrome, Congenital, 10	
<i>DOLK</i>	Congenital Disorder of Glycosylation, Type Im	
<i>DPAGT1</i>	Congenital Disorder of Glycosylation, Type Ij • Myasthenic Syndrome, Congenital, 13, with Tubular Aggregates	
<i>DPM2</i>	Congenital Disorder of Glycosylation, Type Iu	
<i>DPM3</i>	Muscular Dystrophy-Dystroglycanopathy (Limb-Girdle), Type C, 15	
<i>DPYD</i>	5-Fluorouracil Toxicity • Dihydropyrimidine Dehydrogenase Deficiency	
<i>DYSF</i>	Muscular Dystrophy, Limb-Girdle, Autosomal Recessive 2 • Miyoshi Muscular Dystrophy 1 • Myopathy, Distal, with Anterior Tibial Onset	
<i>EDA</i>	Ectodermal Dysplasia 1, Hypohidrotic	◆
<i>EDAR</i>	Ectodermal Dysplasia 10B, Hypohidrotic/Hair/Tooth Type, Autosomal Recessive	
<i>EIF2AK3</i>	Wolcott-Rallison Syndrome	
<i>EIF2B5</i>	Leukoencephalopathy with Vanishing White Matter 5, with or without Ovarian Failure	
<i>ELP1</i>	Dysautonomia, Familial	
<i>EMD</i>	Emery-Dreifuss Muscular Dystrophy 1	◆
<i>ENO3</i>	Glycogen Storage Disease XIII	
<i>ERCC2</i>	Trichothiodystrophy 1, Photosensitive • Xeroderma Pigmentosum, Group D	
<i>ERCC3</i>	Trichothiodystrophy 2, Photosensitive • Xeroderma Pigmentosum, Group B	
<i>ERCC4</i>	Fanconi Anemia, Complementation Group Q • Xeroderma Pigmentosum, Type F/Cockayne Syndrome • XFE Progeroid Syndrome	
<i>ERCC5</i>	Cerebrooculofacioskeletal Syndrome 3 • Xeroderma Pigmentosum, Group G/Cockayne Syndrome	
<i>ERCC6</i>	Cerebrooculofacioskeletal Syndrome 1 • Cockayne Syndrome, Type B • UV-Sensitive Syndrome 1	
<i>ERCC8</i>	Cockayne Syndrome, Type A • UV-Sensitive Syndrome 2	
<i>ESCO2</i>	Juberg-Hayward Syndrome • Roberts-SC Phocomelia Syndrome	
<i>ETFA</i>	Glutaric Acidemia IIA	
<i>ETFB</i>	Glutaric Acidemia IIB	
<i>ETFDH</i>	Glutaric Acidemia IIC	
<i>ETHE1</i>	Ethylmalonic Encephalopathy	
<i>EVC</i>	Ellis-Van Creveld Syndrome, EVC-Related	
<i>EVC2</i>	Ellis-Van Creveld Syndrome, EVC2-related	
<i>EXOSC3</i>	Pontocerebellar Hypoplasia, Type 1B	
<i>EYS</i>	Retinitis Pigmentosa 25	
<i>F11</i>	Factor XI Deficiency, Autosomal Recessive	
<i>F2</i>	Dysprothrombinemia • Hypoprothrombinemia	

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<i>F8</i>	Hemophilia A	◆
<i>F9</i>	Hemophilia B • Thrombophilia 8 due to Factor IX Defect	◆
<i>FAH</i>	Tyrosinemia, Type I	
<i>FAM161A</i>	Retinitis Pigmentosa 2	
<i>FANCA</i>	Fanconi Anemia, Complementation Group A	
<i>FANCC</i>	Fanconi Anemia, Complementation Group C	
<i>FANCG</i>	Fanconi Anemia, Complementation Group G	
<i>FH</i>	Fumarase Deficiency	
<i>FKRP</i>	Muscular Dystrophy-Dystroglycanopathy (Congenital with Brain and Eye Anomalies), Type A, 5 • Muscular Dystrophy-Dystroglycanopathy (Congenital with or without Impaired Intellectual Development), Type B, 5 • Muscular Dystrophy-Dystroglycanopathy (Limb-Girdle), Type C, 5	
<i>FKTN</i>	Cardiomyopathy, Dilated, 1X, • Muscular Dystrophy-Dystroglycanopathy (Congenital with Brain and Eye Anomalies), Type A, 4, • Muscular Dystrophy-Dystroglycanopathy (Congenital without impaired intellectual development), Type B, 4, • Muscular Dystrophy-Dystroglycanopathy (Limb-Girdle), Type C, 4	
<i>FMO3</i>	Trimethylaminuria	
<i>FMR1</i>	Fragile X Syndrome	◆ ■
<i>FUT8</i>	Congenital Disorder of Glycosylation with Defective Fucosylation 1	
<i>G6PC</i>	Glycogen Storage Disease Ia	
<i>G6PD</i>	Hemolytic Anemia, G6PD Deficient (Favism)	◆
<i>GAA</i>	Glycogen Storage Disease II	
<i>GALC</i>	Krabbe Disease	
<i>GALE</i>	Galactose Epimerase Deficiency	
<i>GALK1</i>	Galactokinase Deficiency with Cataracts	
<i>GALNS</i>	Mucopolysaccharidosis IVA	
<i>GALNT3</i>	Tumoral Calcinosis, Hyperphosphatemic, Familial, 1	
<i>GALT</i>	Galactosemia	
<i>GAMT</i>	Cerebral Creatine Deficiency Syndrome 2	
<i>GBA</i>	Gaucher Disease, Perinatal Lethal • Gaucher Disease, Type I • Gaucher Disease, Type II • Gaucher Disease, Type III • Gaucher Disease, Type IIIC	
<i>GBE1</i>	Glycogen Storage Disease IV • Polyglucosan Body Disease, Adult Form	
<i>GCDH</i>	Glutaricaciduria, Type I	
<i>GCH1</i>	Dystonia, DOPA-Responsive • Hyperphenylalaninemia, BH4-Deficient, B	
<i>GDF5</i>	Acromesomelic Dysplasia 2A • Acromesomelic Dysplasia 2B • Brachydactyly, Type A1, C	
<i>GFM1</i>	Combined Oxidative Phosphorylation Deficiency 1	
<i>GH1</i>	Growth Hormone Deficiency, Isolated, Type IA • Kowarski Syndrome	
<i>GHRHR</i>	Growth Hormone Deficiency, Isolated, Type IV	
<i>GJB1</i>	Charcot-Marie-Tooth Neuropathy, 1	◆
<i>GJB2</i>	Deafness, Autosomal Recessive 1A	
<i>GJB3</i>	Deafness, Digenic, GJB2/GJB3 • Erythrokeratoderma Variabilis et Progressiva 1	
<i>GJB6</i>	Deafness, Autosomal Recessive 1B • Deafness, Digenic GJB2/GJB6	
<i>GLA</i>	Fabry Disease • Fabry Disease, Cardiac Variant	◆
<i>GLB1</i>	GM1-Gangliosidosis, Type I • GM1-Gangliosidosis, Type II • GM1-Gangliosidosis, Type III • Mucopolysaccharidosis Type IVB (Morquio)	
<i>GLDC</i>	Glycine Encephalopathy 1	
<i>GLE1</i>	Congenital Arthrogyrosis with Anterior Horn Cell Disease • Lethal Congenital Contracture Syndrome 1	
<i>GM2A</i>	GM2-Gangliosidosis, AB Variant	
<i>GMPPA</i>	Alacrima, Achalasia, and Impaired Intellectual Development Syndrome	
<i>GNE</i>	Nonaka Myopathy	

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GNPTAB	Mucopolipidosis II Alpha/Beta • Mucopolipidosis III Alpha/Beta	
GNPTG	Mucopolipidosis III Gamma	
GNS	Mucopolysaccharidosis Type IIID	
GORAB	Geroderma Osteodysplasticum	
GP1BA	Bernard-Soulier Syndrome, Type A1 (Recessive)	
GP1BB	Bernard-Soulier Syndrome, Type B • Giant Platelet Disorder, Isolated	
GP9	Bernard-Soulier Syndrome, Type C	
GRHPR	Hyperoxaluria, Primary, Type II	
GRIP1	Fraser Syndrome 3	
GUCY2D	Cone-Rod Dystrophy 6 • Leber Congenital Amaurosis 1 • Night Blindness, Congenital Stationary, Type 1I	
GUSB	Mucopolysaccharidosis VII	
GYS1	Glycogen Storage Disease 0, Muscle	
GYS2	Glycogen Storage Disease 0, Liver	
HADH	3-Hydroxyacyl-CoA Dehydrogenase Deficiency • Hyperinsulinemic Hypoglycemia, Familial, 4	
HADHA	Fatty Liver, Acute, of Pregnancy • HELLP Syndrome, Maternal, of Pregnancy • LCHAD Deficiency • Mitochondrial Trifunctional Protein Deficiency 1	
HADHB	Mitochondrial Trifunctional Protein Deficiency 2	
HAX1	Neutropenia, Severe Congenital 3, Autosomal Recessive	
HBA1	Thalassemia, Alpha • Hemoglobin H Disease, Nondeletional	■
HBA2	Thalassemia, Alpha • Hemoglobin H Disease, Deletional and Nondeletional	■
HBB	Sickle Cell Anemia • Thalassemia, Beta	
HEXA	GM2-Gangliosidosis, Several Forms • Tay-Sachs Disease	
HEXB	Sandhoff Disease, Infantile, Juvenile, and Adult Forms	
HFE	Hemochromatosis	
HGD	Alkaptonuria	
HGSNAT	Mucopolysaccharidosis Type IIIC (Sanfilippo C) • Retinitis Pigmentosa 73	
HJV	Hemochromatosis, Type 2A	
HLCS	Holocarboxylase Synthetase Deficiency	
HMGCL	HMG-CoA Lyase Deficiency	
HMGCS2	HMG-CoA Synthase-2 Deficiency	
HMOX1	Heme Oxygenase-1 Deficiency	
HOGA1	Hyperoxaluria, Primary, Type III	
HPD	Tyrosinemia, Type III	
HPS1	Hermansky-Pudlak Syndrome 1	
HPS3	Hermansky-Pudlak Syndrome 3	
HPS4	Hermansky-Pudlak Syndrome 4	
HSD17B3	Pseudohermaphroditism, Male, with Gynecomastia	
HSD17B4	D-Bifunctional Protein Deficiency • Perrault Syndrome 1	
HSD3B2	Adrenal Hyperplasia, Congenital, due to 3-Beta-hydroxysteroid Dehydrogenase 2 Deficiency	
HYAL1	Hydroletharus Syndrome	
HYLS1	Hydroletharus Syndrome	
IDS	Mucopolysaccharidosis II	◆
IDUA	Mucopolysaccharidosis Ih • Mucopolysaccharidosis Ih/s • Mucopolysaccharidosis Is	
IL2RG	Combined Immunodeficiency, Moderate • Severe Combined Immunodeficiency	◆
ITGB3	Glanzmann Thrombasthenia 2	

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GENE	Disorder	SPECIFICATIONS
IVD	Isovaleric Acidemia	
KCNJ11	Hyperinsulinemic Hypoglycemia, Familial, 2	
L1CAM	Hydrocephalus, Congenital, X-linked • MASA Syndrome	◆
LAMA2	Muscular Dystrophy, Congenital, Merosin Deficient or Partially Deficient • Muscular Dystrophy, Limb-Girdle, Autosomal Recessive 23	
LAMA3	Epidermolysis Bullosa, Junctional 2A, Intermediate • Epidermolysis Bullosa, Junctional 2B, Severe • Epidermolysis Bullosa, Junctional 2C, laryngoonychocutaneous	
LAMB3	Epidermolysis Bullosa, Junctional 1A, Intermediate • Epidermolysis Bullosa, Junctional 1B, Severe	
LAMC2	Epidermolysis Bullosa, Junctional 3A, Intermediate • Epidermolysis Bullosa, Junctional 3B, Severe	
LCA5	Leber Congenital Amaurosis 5	
LDHA	Glycogen Storage Disease XI	
LDLR	Hypercholesterolemia, Familial, 1 • LDL Cholesterol Level QTL2	
LDLRAP1	Hypercholesterolemia, Familial, 4	
LHCGR	Leydig Cell Hypoplasia with Hypergonadotropic Hypogonadism • Leydig Cell Hypoplasia with Pseudohermaphroditism • Luteinizing Hormone Resistance, Female	
LHX3	Pituitary Hormone Deficiency, Combined, 3	
LIAS	Hyperglycinemia, Lactic Acidosis, and Seizures	
LIFR	Stuve-Wiedemann Syndrome/Schwartz-Jampel Type 2 Syndrome	
LIPA	Cholesteryl ester Storage Disease • Wolman Disease	
LIPH	Hypotrichosis 7 • Woolly Hair, Autosomal Recessive 2 with or without Hypotrichosis	
LOXHD1	Deafness, Autosomal Recessive 77	
LPL	Lipoprotein Lipase Deficiency	
LRP2	Donnai-Barrow Syndrome	
LRPPRC	Mitochondrial Complex IV Deficiency, Nuclear Type 5, (French-Canadian)	
LYST	Chediak-Higashi Syndrome	
MAN1B1	Rafiq Syndrome	
MAN2B1	Mannosidosis, Alpha, Types I and II	
MANBA	Mannosidosis, Beta	
MAT1A	Hypermethioninemia, Persistent, Autosomal Dominant, due to Methionine Adenosyltransferase I/III Deficiency • Methionine Adenosyltransferase Deficiency, Autosomal Recessive	
MCCC1	3-Methylcrotonyl-CoA Carboxylase 1 Deficiency	
MCCC2	3-Methylcrotonyl-CoA Carboxylase 2 Deficiency	
MCOLN1	Mucopolipidosis IV	
MCPH1	Microcephaly 1, Primary, Autosomal Recessive	
MECP2	Encephalopathy, Neonatal Severe • Intellectual Developmental Disorder, Syndromic 13 • Intellectual Developmental Disorder, Lubs Type	◆
MED17	Microcephaly, Postnatal Progressive, with Seizures and Brain Atrophy	
MEFV	Familial Mediterranean Fever, Autosomal Recessive	
MESP2	Spondylocostal Dysostosis 2, Autosomal Recessive	
MFSD8	Ceroid Lipofuscinosis, Neuronal, 7 • Macular Dystrophy with Central Cone Involvement	
MGAT2	Congenital Disorder of Glycosylation, Type Iia	
MID1	Opitz GBBB Syndrome	◆
MKKS	Bardet-Biedl Syndrome 6 • McKusick-Kaufman Syndrome	
MKS1	Bardet-Biedl Syndrome 13 • Joubert Syndrome 28 • Meckel Syndrome 1	
MLC1	Megalencephalic Leukoencephalopathy with Subcortical Cysts 1	
MLYCD	Malonyl-CoA Decarboxylase Deficiency	
MMAA	Methylmalonic Acidemia, cblA Type	
MMAB	Methylmalonic Acidemia, cblB Type	

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GENE	Disorder	SPECIFICATIONS
MMACHC	Methylmalonic Acidemia and Homocystinuria, cbIC Type	
MMADHC	Methylmalonic Acidemia and homocystinuria, cbID Type	
MOC51	Molybdenum Cofactor Deficiency A	
MOGS	Congenital Disorder of Glycosylation, Type Iib	
MPDU1	Congenital Disorder of Glycosylation, Type If	
MPI	Congenital Disorder of Glycosylation, Type Ib	
MPL	Thrombocytopenia, Congenital Amegakaryocytic	
MPV17	Charcot-Marie-Tooth Disease, Axonal, Type 2EE • Mitochondrial DNA Depletion Syndrome 6 (Hepatocerebral Type)	
MRE11	Ataxia-Telangiectasia-Like Disorder 1	
MTHFR	Homocystinuria due to MTHFR Deficiency	
MTM1	Myopathy, Centronuclear	◆
MTR	Homocystinuria-Megaloblastic Anemia, cbIG Complementation Type	
MTRR	Homocystinuria-Megaloblastic Anemia, cbIE Type	
MTTP	Abetalipoproteinemia	
MMUT	Methylmalonic Acidemia due to Methylmalonyl-CoA Mutase Deficiency	
MVK	Hyper-IgD Syndrome • Mevalonic Aciduria	
MYO15A	Deafness, Autosomal Recessive 3	
MYO7A	Deafness, Autosomal Recessive 2 • Usher Syndrome, Type 1B	
NADK2	2,4-Dienoyl-CoA Reductase Deficiency	
NAGA	Kanzaki Disease • Schindler Disease, Type I • Schindler Disease, Type III	
NAGLU	Mucopolysaccharidosis Type IIIB (Sanfilippo B)	
NAGS	N-Acetylglutamate Synthase Deficiency	
NBN	Nijmegen Breakage Syndrome	
NDRG1	Charcot-Marie-Tooth Disease, Type 4D	
NDUFAF5	Mitochondrial Complex I Deficiency, Nuclear Type 16	
NDUFS4	Mitochondrial Complex I Deficiency, Nuclear Type 1	
NDUFS6	Mitochondrial Complex I Deficiency, Nuclear Type 9	
NEB	Arthrogryposis Multiplex Congenita 6 • Nemaline Myopathy 2, Autosomal Recessive	
NEU1	Sialidosis, Type I • Sialidosis, Type II	
NGLY1	Congenital Disorder of Deglycosylation 1	
NLRP7	Hydatidiform Mole, Recurrent, 1	
NPC1	Niemann-Pick Disease, Type C1 • Niemann-Pick Disease, Type D	
NPC2	Niemann-Pick Disease, Type C2	
NPHP1	Joubert Syndrome 4 • Nephronophthisis 1, Juvenile • Senior-Loken Syndrome-1	
NPHS1	Nephrotic Syndrome, Type 1	
NPHS2	Nephrotic Syndrome, Type 2	
NR0B1	46 XY Sex Reversal 2, Dosage-Sensitive • Adrenal Hypoplasia, Congenital	◆
NR2E3	Enhanced S-Cone Syndrome • Retinitis Pigmentosa 37	
NTRK1	Insensitivity to Pain, Congenital, with Anhidrosis	
OAT	Gyrate Atrophy of Choroid and Retina with or without Ornithinemia	
OCA2	Albinism, Brown Oculocutaneous • Albinism, Oculocutaneous, Type II	
OCRL	Dent Disease 2 • Lowe Syndrome	◆
OPA3	3-Methylglutaconic Aciduria, Type III	
OTC	Ornithine Transcarbamylase Deficiency	◆
PAH	Phenylketonuria	
PANK2	HARP Syndrome • Neurodegeneration with Brain Iron Accumulation 1	
PC	Pyruvate Carboxylase Deficiency	

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# GENETIC TESTING FOR DONORS-RECIPIENTS

## 500 GENES TESTED

GENE	Disorder	SPECIFICATIONS
PCCA	Propionicacidemia	
PCCB	Propionicacidemia	
PCDH15	Deafness, Autosomal Recessive 23 • Usher Syndrome, Type 1D/F digenic • Usher Syndrome, Type 1F	
PDHA1	Pyruvate Dehydrogenase E1-Alpha Deficiency	◆
PDHB	Pyruvate Dehydrogenase E1-Beta Deficiency	
PEPD	Prolidase Deficiency	
PET100	Mitochondrial Complex IV Deficiency, Nuclear Type 12	
PEX1	Heimler Syndrome 1 • Peroxisome Biogenesis Disorder 1A (Zellweger) • Peroxisome Biogenesis Disorder 1B (NALD/IRD)	
PEX10	Peroxisome Biogenesis Disorder 6A (Zellweger) • Peroxisome Biogenesis Disorder 6B	
PEX11B	Peroxisome Biogenesis Disorder 14B	
PEX12	Peroxisome Biogenesis Disorder 3A (Zellweger) • Peroxisome Biogenesis Disorder 3B	
PEX13	Peroxisome Biogenesis Disorder 11A (Zellweger) • Peroxisome Biogenesis Disorder 11B	
PEX14	Peroxisome Biogenesis Disorder 13A (Zellweger)	
PEX16	Peroxisome Biogenesis Disorder 8A (Zellweger) • Peroxisome Biogenesis Disorder 8B	
PEX19	Peroxisome Biogenesis Disorder 12A (Zellweger)	
PEX2	Peroxisome Biogenesis Disorder 5A (Zellweger) • Peroxisome Biogenesis Disorder 5B	
PEX26	Peroxisome Biogenesis Disorder 7A (Zellweger) • Peroxisome Biogenesis Disorder 7B	
PEX3	Peroxisome Biogenesis Disorder 10A (Zellweger)	
PEX5	Peroxisome Biogenesis Disorder 2A (Zellweger) • Peroxisome Biogenesis Disorder 2B • Rhizomelic Chondrodysplasia Punctata, Type 5	
PEX6	Heimler Syndrome 2 • Peroxisome Biogenesis Disorder 4A (Zellweger) • Peroxisome Biogenesis Disorder 4B	
PEX7	Peroxisome Biogenesis Disorder 9B • Rhizomelic Chondrodysplasia punctata, Type 1	
PFKM	Glycogen Storage Disease VII	
PGAM2	Glycogen Storage Disease X	
PGM1	Congenital Disorder of Glycosylation, Type It	
PHGDH	Neu-Laxova Syndrome 1 • Phosphoglycerate dehydrogenase Deficiency	
PHKG2	Glycogen Storage Disease IXc	
PHYH	Refsum Disease	
PIGN	Multiple Congenital Anomalies-Hypotonia-Seizures Syndrome 1	
PKHD1	Polycystic Kidney Disease 4, with or without Hepatic Disease	
PLA2G6	Infantile Neuroaxonal Dystrophy 1 • Neurodegeneration with Brain Iron Accumulation 2B • Parkinson Disease 14, Autosomal Recessive	
PMM2	Congenital Disorder of Glycosylation, Type Ia	
PNPO	Pyridoxamine 5'-Phosphate Oxidase Deficiency	
POLG	Mitochondrial DNA Depletion Syndrome 4A (Alpers Type) • Mitochondrial DNA Depletion Syndrome 4B (MNGIE Type) • Mitochondrial Recessive Ataxia Syndrome (includes SANDO and SCAE) • Progressive External Ophthalmoplegia, Autosomal Recessive 1	
POLH	Xeroderma Pigmentosum, Variant Type	
POMGNT1	Muscular Dystrophy-Dystroglycanopathy (Congenital with Brain and Eye Anomalies) Type A, 3 • Muscular Dystrophy-Dystroglycanopathy (Congenital with Impaired Intellectual Development) Type B, 3 • Muscular Dystrophy-Dystroglycanopathy (Limb-Girdle), Type C, 3 • Retinitis Pigmentosa 76	
POR	Antley-Bixler Syndrome with Genital Anomalies and Disordered Steroidogenesis	
PPT1	Ceroid Lipofuscinosis, Neuronal, 1	
PREPL	Myasthenic Syndrome, Congenital, 22	
PRF1	Hemophagocytic Lymphohistiocytosis, Familial, 2	
PROP1	Pituitary Hormone Deficiency, Combined, 2	
PRPS1	Arts Syndrome • Charcot-Marie-Tooth Disease, 5 • Deafness, 1 • Gout, PRPS-related • Phosphoribosylpyrophosphate Synthetase Superactivity	◆

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# GENETIC TESTING FOR DONORS-RECIPIENTS

500 GENES TESTED

GENE	Disorder	SPECIFICATIONS
PSAP	Combined SAP Deficiency • Krabbe Disease, Atypical • Metachromatic Leukodystrophy due to SAP-b Deficiency	
PTS	Hyperphenylalaninemia, BH4-Deficient, A	
PUS1	Myopathy, Lactic Acidosis, and Sideroblastic Anemia 1	
PYGM	McArdle Disease	
RAB23	Carpenter Syndrome	
RAG1	Combined Cellular and Humoral Immune Defects with Granulomas • Omenn Syndrome • Severe Combined Immunodeficiency, B Cell-Negative	
RAG2	Combined Cellular and Humoral Immune Defects with Granulomas • Omenn Syndrome • Severe Combined Immunodeficiency, B Cell-Negative	
RAPSN	Fetal Akinesia Deformation Sequence 2 • Myasthenic Syndrome, Congenital, 11, Associated with Acetylcholine Receptor Deficiency	
RARS2	Pontocerebellar Hypoplasia, Type 6	
RDH12	Leber Congenital Amaurosis 13	
RFT1	Congenital Disorder of Glycosylation, Type In	
RLBP1	Bothnia Retinal Dystrophy • Fundus Albipunctatus • Retinitis Punctata Albescens	
RMRP	Anauxetic Dysplasia 1 • Cartilage-Hair Hypoplasia • Metaphyseal Dysplasia without Hypotrichosis	
RNASEH2B	Aicardi-Goutieres Syndrome 2	
RNASEH2C	Aicardi-Goutieres Syndrome 3	
RPE65	Leber Congenital Amaurosis 2 • Retinitis pigmentosa 20	
RPGRI1L	Joubert Syndrome 7 • Meckel Syndrome 5	
RS1	Retinoschisis	◆
RTEL1	Dyskeratosis Congenital, Autosomal Recessive 5	
SACS	Spastic Ataxia, Charlevoix-Saguenay Type	
SAMD9	Tumoral Calcinosis, Familial, Normophosphatemic	
SAMHD1	Aicardi-Goutieres Syndrome 5	
SBDS	Shwachman-Diamond Syndrome 1	
SCO2	Mitochondrial Complex IV Deficiency, Nuclear Type 2	
SEPSECS	Pontocerebellar Hypoplasia Type 2D	
SERAC1	3-Methylglutaconic Aciduria with Deafness, Encephalopathy, and Leigh-Like Syndrome	
SERPINA1	Emphysema due to AAT Deficiency • Emphysema-Cirrhosis, due to AAT Deficiency • Hemorrhagic Diathesis due to Antithrombin Pittsburgh	
SGCA	Muscular Dystrophy, Limb-Girdle, Autosomal Recessive 3	
SGCB	Muscular Dystrophy, Limb-Girdle, Autosomal Recessive 4	
SGCD	Muscular Dystrophy, Limb-Girdle, Autosomal Recessive 6	
SGCG	Muscular Dystrophy, Limb-Girdle, Autosomal Recessive 5	
SGSH	Mucopolysaccharidosis Type IIIA (Sanfilippo A)	
SKIC3	Trichohepatoenteric Syndrome 1	
SLC12A3	Gitelman Syndrome	
SLC12A6	Agenesis of the Corpus Callosum with Peripheral Neuropathy	
SLC17A5	Salla Disease • Sialic Acid Storage Disorder, Infantile	
SLC19A2	Thiamine-Responsive Megaloblastic Anemia Syndrome	
SLC19A3	Thiamine Metabolism Dysfunction Syndrome 2 (Biotin- or Thiamine-Responsive Encephalopathy Type 2)	
SLC22A5	Carnitine Deficiency, Systemic Primary	
SLC25A13	Citrullinemia, Adult-Onset Type II • Citrullinemia, Type II, Neonatal-Onset	
SLC25A15	Hyperornithinemia-Hyperammonemia-Homocitrullinemia Syndrome	
SLC25A20	Carnitine-Acylcarnitine Translocase Deficiency	

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# GENETIC TESTING FOR DONORS-RECIPIENTS

## 500 GENES TESTED

GENE	Disorder	SPECIFICATIONS
SLC26A2	Achondrogenesis Ib • Atelosteogenesis, Type II • De la Chapelle Dysplasia • Diastrophic Dysplasia • Diastrophic Dysplasia, Broad Bone-Platyspondylic Variant • Epiphyseal Dysplasia, Multiple, 4	
SLC26A3	Diarrhea 1, Secretory Chloride, Congenital	
SLC26A4	Deafness, Autosomal Recessive 4, with Enlarged Vestibular Aqueduct • Pendred Syndrome	
SLC35A3	Arthrogryposis, Impaired Intellectual Development, and Seizures	
SLC37A4	Glycogen Storage Disease Ib • Glycogen Storage Disease Ic	
SLC39A4	Acrodermatitis enteropathica	
SLC3A1	Cystinuria, Type A	
SLC45A2	Albinism, Oculocutaneous, Type IV	
SLC4A11	Corneal Endothelial Dystrophy and Perceptive Deafness • Corneal Endothelial Dystrophy, Autosomal Recessive	
SLC6A8	Cerebral Creatine Deficiency Syndrome 1	◆
SLC7A7	Lysinuric Protein Intolerance	
SLC7A9	Cystinuria, Type B	
SMARCAL1	Schimke Immunoosseous Dysplasia	
SMN1	Spinal Muscular Atrophy 1 • Spinal Muscular Atrophy 2 • Spinal Muscular Atrophy 3 • Spinal Muscular Atrophy 4	■
SMPD1	Niemann-Pick Disease, Type A • Niemann-Pick Disease, Type B	
SRD5A2	Pseudovaginal Perineoscrotal Hypospadias	
ST3GAL5	Salt and Pepper Developmental Regression Syndrome	
STAR	Lipoid Adrenal Hyperplasia	
STRC	Deafness, Autosomal Recessive 16	
SUCLA2	Mitochondrial DNA Depletion Syndrome 5 (Encephalomyopathic with or without Methylmalonic Aciduria)	
SUMF1	Multiple Sulfatase Deficiency	
SURF1	Charcot-Marie-Tooth Disease, Type 4K • Mitochondrial Complex IV Deficiency, Nuclear Type 1	
TAT	Tyrosinemia, Type II	
TCIRG1	Osteopetrosis, Autosomal Recessive 1	
TECPR2	Neuropathy, Hereditary Sensory and Autonomic, Type IX, with Developmental Delay	
TF	Atransferrinemia	
TFR2	Hemochromatosis, Type 3	
TGM1	Ichthyosis, Congenital, Autosomal Recessive 1	
TH	Segawa Syndrome, Recessive	
TMC1	Deafness, Autosomal Recessive 7	
TMEM216	Joubert Syndrome 2 • Meckel Syndrome 2	
TPO	Thyroid Dysmorphogenesis 2A	
TPP1	Ceroid Lipofuscinosis, Neuronal, 2 • Spinocerebellar ataxia, Autosomal Recessive 7	
TPRN	Deafness, Autosomal Recessive 79	
TREX1	Aicardi-Goutieres Syndrome 1, Dominant and Recessive	
TRIM32	Muscular dystrophy, Limb-Girdle, Autosomal Recessive 8	
TRIM37	Mulibrey Nanism	
TRIOBP	Deafness, Autosomal Recessive 28	
TRMU	Liver Failure, Transient Infantile	
TSEN54	Pontocerebellar Hypoplasia Type 2A • Pontocerebellar Hypoplasia Type 4	
TSM	Combined Oxidative Phosphorylation Deficiency 3	
TSHB	Hypothyroidism, Congenital, Nongoitrous 4	
TSHR	Hypothyroidism, Congenital, Nongoitrous, 1	
TTN	Congenital Myopathy 5 with Cardiomyopathy • Muscular Dystrophy, Limb-Girdle, Autosomal Recessive 10	
TTPA	Ataxia with Isolated Vitamin E Deficiency	

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# GENETIC TESTING FOR DONORS-RECIPIENTS

## 500 GENES TESTED

GENE	Disorder	SPECIFICATIONS
<i>TYMP</i>	Mitochondrial DNA Depletion Syndrome 1 (MNGIE Type)	
<i>TYR</i>	Albinism, Oculocutaneous, Type IA • Albinism, Oculocutaneous, Type IB	
<i>TYRP1</i>	Albinism, Oculocutaneous, Type III	
<i>UGT1A1</i>	Crigler-Najjar Syndrome, Type I • Crigler-Najjar Syndrome, Type II • Hyperbilirubinemia, Familial Transient Neonatal	
<i>UPB1</i>	Beta-Ureidopropionase Deficiency	
<i>USH1C</i>	Deafness, Autosomal Recessive 18A • Usher Syndrome, Type 1C	
<i>USH1G</i>	Usher Syndrome, Type 1G	
<i>USH2A</i>	Retinitis Pigmentosa 39 • Usher Syndrome, Type 2A	
<i>VPS13A</i>	Choreoacanthocytosis	
<i>VPS13B</i>	Cohen Syndrome	
<i>VPS45</i>	Neutropenia, Severe Congenital, 5, Autosomal Recessive	
<i>VPS53</i>	Pontocerebellar Hypoplasia, Type 2E	
<i>VRK1</i>	Pontocerebellar Hypoplasia Type 1A	
<i>VSX2</i>	Microphthalmia with Coloboma 3 • Microphthalmia, Isolated 2	
<i>VWF</i>	von Willebrand Disease, Type 3 • von Willebrand Disease, Types 2A, 2B, 2M, and 2N	
<i>WAS</i>	Neutropenia, Severe Congenital • Thrombocytopenia • Thrombocytopenia, Intermittent • Wiskott-Aldrich Syndrome	◆
<i>WNT10A</i>	Ectodermal Dysplasia 16 (Odontoonychodermal Dysplasia) • Schopf-Schulz-Passarge Syndrome • Tooth Agenesis, Selective, 4	
<i>WRN</i>	Werner Syndrome	
<i>XPA</i>	Xeroderma Pigmentosum, Group A	
<i>XPC</i>	Xeroderma Pigmentosum, Group C	
<i>ZFYVE26</i>	Spastic Paraplegia 15, Autosomal Recessive	

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