

## Individual Genome Sequence Predisposition and Carrier Screening Test Gene List (By Disease)

| Disease  | Associated Gene | Mode of Inheritance | Transcript ID | Callability (%) |
|--|-----------------|---------------------|---------------|-----------------|
| 17-Beta-Hydroxysteroid Dehydrogenase III Deficiency    | HSD17B3         | RECESSIVE           | NM_000197.1   | 99.98%          |
| 3-Hydroxy-3-Methylglutaryl-CoA Synthase 2 Deficiency   | HMGCS2          | RECESSIVE           | NM_005518.3   | 99.90%          |
| 3-Hydroxy-3-Methylglutaryl-Coenzyme A Lyase Deficiency | HMGCL           | RECESSIVE           | NM_000191.2   | 98.43%          |
| 3-Hydroxyacyl-Coenzyme A Dehydrogenase Deficiency      | HADH            | RECESSIVE           | NM_005327.4   | 99.54%          |
| 3-M Syndrome   | CUL7            | RECESSIVE           | NM_014780.4   | 99.22%          |
| 3-MCC Deficiency                                       | MCCC1           | RECESSIVE           | NM_020166.3   | 99.59%          |
| 3-MCC Deficiency                                       | MCCC2           | RECESSIVE           | NM_022132.4   | 99.67%          |
| 3-Methylglutaconic Aciduria, Type 1                    | AUH             | RECESSIVE           | NM_001698.2   | 99.03%          |
| 3-Methylglutaconic Aciduria, Type 2                    | TAZ             | X_LINKED            | NM_000116.3   | 90.55%          |
| 3-Methylglutaconic Aciduria, Type 3                    | OPA3            | RECESSIVE           | NM_025136.3   | 97.52%          |
| 3-Methylglutaconic Aciduria, Type 5                    | DNAJC19         | RECESSIVE           | NM_145261.3   | 99.80%          |
| 46,XY DSD/46,XY CGD                                    | DHH             | RECESSIVE           | NM_021044.2   | 99.37%          |
| 6-Pyruvoyltetrahydropterin Synthase Deficiency         | PTS             | DOMINANT            | NM_000317.2   | 96.48%          |
| Abetalipoproteinemia                                   | MTTP            | RECESSIVE           | NM_000253.2   | 99.20%          |
| ACAD9 Deficiency                                       | ACAD9           | RECESSIVE           | NM_014049.4   | 97.67%          |
| Aceruloplasminemia                                     | CP              | RECESSIVE           | NM_000096.3   | 98.64%          |
| Achalasia-Addisonianism-Alacrima Syndrome              | AAAS            | RECESSIVE           | NM_015665.5   | 99.82%          |
| Achondrogenesis  | SLC26A2         | DOMINANT            | NM_000112.3   | 99.63%          |
| Achondrogenesis  | TRIP11          | DOMINANT            | NM_004239.3   | 99.76%          |
| Achromatopsia  | CNGA3           | RECESSIVE           | NM_001298.2   | 99.74%          |
| Achromatopsia  | CNGB3           | RECESSIVE           | NM_019098.4   | 99.76%          |

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| Achromatopsia   | GNAT2    | RECESSIVE | NM_005272.3    | 99.98%  |
| Achromatopsia   | PDE6C    | RECESSIVE | NM_006204.3    | 99.96%  |
| Acid Sphingomyelinase Deficiency                        | SMPD1    | RECESSIVE | NM_000543.4    | 97.05%  |
| Acid-Labile Subunit Deficiency                          | IGFALS   | RECESSIVE | NM_004970.2    | 97.51%  |
| Acrodermatitis Enteropathica                            | SLC39A4  | RECESSIVE | NM_130849.2    | 98.53%  |
| Acrodysostosis  | PDE4D    | DOMINANT  | NM_001104631.1 | 98.42%  |
| Acrodysostosis  | PRKAR1A  | DOMINANT  | NM_002734.3    | 99.91%  |
| Acromesomelic Dysplasia                                 | GDF5     | RECESSIVE | NM_000557.2    | 98.65%  |
| Acromesomelic Dysplasia                                 | NPR2     | RECESSIVE | NM_003995.3    | 99.04%  |
| Acromicric Dysplasia                                    | FBN1     | DOMINANT  | NM_000138.4    | 99.59%  |
| ACTH Deficiency   | TBX19    | RECESSIVE | NM_005149.2    | 99.72%  |
| Acute Hepatic Porphyria                                 | ALAD     | DOMINANT  | NM_000031.5    | 99.37%  |
| Acute Infantile Liver Failure                           | TRMU     | RECESSIVE | NM_018006.4    | 97.62%  |
| Acute Recurrent Myoglobinuria                           | LPIN1    | DOMINANT  | NM_145693.2    | 98.10%  |
| Acyl-CoA Dehydrogenase, Short/Branched Chain Deficiency | ACADSB   | RECESSIVE | NM_001609.3    | 99.29%  |
| Adams-Oliver Syndrome                                   | ARHGAP31 | DOMINANT  | NM_020754.2    | 99.53%  |
| Adenine Phosphoribosyltransferase Deficiency            | APRT     | RECESSIVE | NM_000485.2    | 99.73%  |
| Adenosine Deaminase Deficiency                          | ADA      | RECESSIVE | NM_000022.2    | 96.79%  |
| Adenylosuccinase Deficiency                             | ADSL     | RECESSIVE | NM_000026.2    | 97.88%  |
| Adult Polyglucosan Body Disease                         | GBE1     | RECESSIVE | NM_000158.3    | 98.20%  |
| Age-Related Cortical Cataract                           | EPHA2    | DOMINANT  | NM_004431.3    | 96.56%  |
| Aicardi-Goutieres Syndrome                              | RNASEH2A | RECESSIVE | NM_006397.2    | 98.76%  |
| Aicardi-Goutieres Syndrome                              | RNASEH2B | RECESSIVE | NM_024570.3    | 97.14%  |
| Aicardi-Goutieres Syndrome                              | RNASEH2C | RECESSIVE | NM_032193.3    | 99.13%  |
| Aicardi-Goutieres Syndrome                              | SAMHD1   | RECESSIVE | NM_015474.3    | 99.80%  |
| Alagille Syndrome                                       | JAG1     | DOMINANT  | NM_000214.2    | 99.22%  |
| Aldolase A Deficiency                                   | ALDOA    | RECESSIVE | NM_000034.3    | 99.48%  |
| Alexander Disease                                       | GFAP     | DOMINANT  | NM_002055.4    | 98.03%  |
| Alkaptonuria  | HGD      | RECESSIVE | NM_000187.3    | 100.00% |

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| Alopecia and T-Cell Immunodeficiency                              | FOXN1    | RECESSIVE | NM_003593.2 | 98.70% |
| Alopecia Universalis  | HR       | RECESSIVE | NM_005144.4 | 98.05% |
| Alpha-1 Antitrypsin Deficiency                                    | SERPINA1 | RECESSIVE | NM_000295.4 | 99.77% |
| Alpha-B Crystallinopathy  | CRYAB    | RECESSIVE | NM_001885.1 | 99.76% |
| Alpha-Mannosidosis  | MAN2B1   | RECESSIVE | NM_000528.3 | 97.46% |
| Alpha-Methylacyl-CoA Racemase Deficiency                          | AMACR    | RECESSIVE | NM_014324.5 | 98.70% |
| Alpha-Sarcoglycanopathy   | SGCA     | RECESSIVE | NM_000023.2 | 99.02% |
| Alport Syndrome   | COL4A3   | DOMINANT  | NM_000091.4 | 99.27% |
| Alport Syndrome   | COL4A4   | DOMINANT  | NM_000092.4 | 99.38% |
| ALS2-Related Spectrum Disorders                                   | ALS2     | RECESSIVE | NM_020919.3 | 99.92% |
| Alstrom Syndrome  | ALMS1    | RECESSIVE | NM_015120.4 | 98.67% |
| Alternating Hemiplegia of Childhood                               | ATP1A2   | DOMINANT  | NM_000702.3 | 98.69% |
| Alternating Hemiplegia of Childhood                               | ATP1A3   | DOMINANT  | NM_152296.4 | 97.26% |
| Alveolar Capillary Dysplasia with Misalignment of Pulmonary Veins | FOXF1    | DOMINANT  | NM_001451.2 | 95.48% |
| Alzheimer Disease   | APP      | DOMINANT  | NM_000484.3 | 99.28% |
| Alzheimer Disease   | PSEN1    | DOMINANT  | NM_000021.3 | 99.77% |
| Alzheimer Disease   | PSEN2    | DOMINANT  | NM_000447.2 | 98.87% |
| Amelogenesis Imperfecta, Dominant                                 | DLX3     | DOMINANT  | NM_005220.2 | 96.40% |
| Amelogenesis Imperfecta, Dominant                                 | ENAM     | DOMINANT  | NM_031889.2 | 99.93% |
| Amelogenesis Imperfecta, Recessive                                | MMP20    | RECESSIVE | NM_004771.3 | 98.80% |
| Amelogenesis Imperfecta, Recessive                                | WDR72    | RECESSIVE | NM_182758.2 | 99.30% |
| Amish Infantile Epilepsy Syndrome                                 | ST3GAL5  | RECESSIVE | NM_003896.3 | 96.43% |
| Amish Lethal Microcephaly   | SLC25A19 | RECESSIVE | NM_021734.4 | 97.88% |
| Amyloidosis   | GSN      | DOMINANT  | NM_000177.4 | 95.19% |
| Amyotrophic Lateral Sclerosis, Dominant                           | ANG      | DOMINANT  | NM_001145.4 | 98.69% |
| Amyotrophic Lateral Sclerosis, Dominant                           | FIG4     | DOMINANT  | NM_014845.5 | 99.84% |
| Amyotrophic Lateral Sclerosis, Dominant                           | SETX     | DOMINANT  | NM_015046.5 | 99.83% |
| Amyotrophic Lateral Sclerosis, Dominant                           | SOD1     | DOMINANT  | NM_000454.4 | 99.92% |

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| Amyotrophic Lateral Sclerosis, Dominant                     | TARDBP   | DOMINANT  | NM_007375.3    | 98.20%  |
| Amyotrophic Lateral Sclerosis, Dominant                     | VAPB     | DOMINANT  | NM_004738.4    | 99.01%  |
| Amyotrophic Lateral Sclerosis, Dominant                     | VCP      | DOMINANT  | NM_007126.3    | 99.01%  |
| Amyotrophic Lateral Sclerosis, Recessive                    | ALS2     | RECESSIVE | NM_020919.3    | 99.92%  |
| Amyotrophic Lateral Sclerosis, Recessive                    | FUS      | RECESSIVE | NM_004960.3    | 98.25%  |
| Amyotrophic Lateral Sclerosis, Recessive                    | OPTN     | RECESSIVE | NM_021980.4    | 99.01%  |
| Amyotrophic Lateral Sclerosis/Frontotemporal Dementia       | C9orf72  | DOMINANT  | NM_001256054.1 | 99.39%  |
| Andersen-Tawil Syndrome                                     | KCNJ2    | DOMINANT  | NM_000891.2    | 98.32%  |
| Angiokeratoma Corporis Diffusum with Arteriovenous Fistulas | KRIT1    | DOMINANT  | NM_194456.1    | 99.20%  |
| Aniridia  | PAX6     | DOMINANT  | NM_000280.4    | 99.26%  |
| Aniridia, Cerebellar Ataxia, And Mental Retardation         | PAX6     | RECESSIVE | NM_000280.4    | 99.26%  |
| Anophthalmia  | PAX6     | DOMINANT  | NM_000280.4    | 99.26%  |
| Anophthalmia/Microphthalmia                                 | SIX6     | DOMINANT  | NM_007374.2    | 95.65%  |
| Antenatal Bartter Syndrome                                  | KCNJ1    | RECESSIVE | NM_000220.3    | 100.00% |
| Antenatal Bartter Syndrome                                  | SLC12A1  | RECESSIVE | NM_000338.2    | 99.97%  |
| Anterior Segment Mesenchymal Dysgenesis                     | PITX2    | DOMINANT  | NM_153427.2    | 99.12%  |
| Antithrombin-III Deficiency                                 | SERPINC1 | DOMINANT  | NM_000488.3    | 99.98%  |
| APC-Associated Polyposis Disorders                          | APC      | DOMINANT  | NM_000038.5    | 99.94%  |
| Apert Syndrome  | FGFR2    | DOMINANT  | NM_000141.4    | 97.52%  |
| Aplasia of Lacrimal and Salivary Glands                     | FGF10    | DOMINANT  | NM_004465.1    | 99.92%  |
| Aplastic Anemia   | IFNG     | RECESSIVE | NM_000619.2    | 99.90%  |
| Apolipoprotein C-II Deficiency                              | APOC2    | RECESSIVE | NM_000483.4    | 99.25%  |
| Arginase Deficiency   | ARG1     | RECESSIVE | NM_000045.2    | 99.91%  |
| Argininosuccinate Lyase Deficiency                          | ASL      | RECESSIVE | NM_000048.3    | 96.32%  |
| Aromatase Deficiency  | CYP19A1  | RECESSIVE | NM_031226.2    | 99.10%  |
| Aromatic L-Amino Acid Decarboxylase Deficiency              | DDC      | RECESSIVE | NM_000790.3    | 99.93%  |
| ARSACS  | SACS     | RECESSIVE | NM_014363.4    | 99.89%  |
| Arterial Tortuosity Syndrome                                | SLC2A10  | RECESSIVE | NM_030777.3    | 97.77%  |

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| Arthrogryposis Multiplex Congenita                          | MYH3    | DOMINANT  | NM_002470.3    | 99.45% |
| Arthrogryposis Multiplex Congenita                          | TNNI2   | DOMINANT  | NM_003282.3    | 96.15% |
| Arthrogryposis Multiplex Congenita                          | TNNT3   | DOMINANT  | NM_006757.3    | 99.33% |
| Arthrogryposis Multiplex Congenita                          | TPM2    | DOMINANT  | NM_003289.3    | 97.92% |
| Arthrogryposis, Renal Dysfunction, and Cholestasis Syndrome | VPS33B  | RECESSIVE | NM_018668.3    | 99.37% |
| Arts Syndrome   | PRPS1   | X_LINKED  | NM_002764.3    | 88.28% |
| Arylsulfatase A Deficiency                                  | ARSA    | RECESSIVE | NM_000487.5    | 96.29% |
| Aspartylglycosaminuria                                      | AGA     | RECESSIVE | NM_000027.3    | 99.92% |
| Asphyxiating Thoracic Dystrophy                             | DYNC2H1 | RECESSIVE | NM_001080463.1 | 99.44% |
| Asphyxiating Thoracic Dystrophy                             | IFT80   | RECESSIVE | NM_020800.2    | 99.65% |
| Asphyxiating Thoracic Dystrophy                             | TTC21B  | RECESSIVE | NM_024753.4    | 98.51% |
| Asphyxiating Thoracic Dystrophy                             | WDR19   | RECESSIVE | NM_025132.3    | 99.31% |
| Ataxia Neuropathy Spectrum Disorders                        | C10orf2 | DOMINANT  | NM_021830.4    | 98.46% |
| Ataxia with Oculomotor Apraxia                              | APTX    | RECESSIVE | NM_175073.2    | 99.02% |
| Ataxia with Oculomotor Apraxia                              | SETX    | RECESSIVE | NM_015046.5    | 99.83% |
| Ataxia with Vitamin E Deficiency                            | TTPA    | RECESSIVE | NM_000370.3    | 96.78% |
| Ataxia-Telangiectasia                                       | ATM     | RECESSIVE | NM_000051.3    | 98.79% |
| Ataxia-Telangiectasia-Like Disorder                         | MRE11A  | RECESSIVE | NM_005591.3    | 99.83% |
| Atelosteogenesis  | SLC26A2 | RECESSIVE | NM_000112.3    | 99.63% |
| Athabaskan Brainstem Dysgenesis Syndrome                    | HOXA1   | RECESSIVE | NM_005522.4    | 99.19% |
| Atransferrinemia  | TF      | RECESSIVE | NM_001063.3    | 99.67% |
| Atrial Septal Defect  | ACTC1   | DOMINANT  | NM_005159.4    | 98.49% |
| Atrial Septal Defect  | MYH6    | DOMINANT  | NM_002471.3    | 98.59% |
| Atrichia with Papular Lesions                               | HR      | RECESSIVE | NM_005144.4    | 98.05% |
| Atypical Gaucher Disease                                    | PSAP    | DOMINANT  | NM_002778.2    | 99.84% |
| Atypical Hemolytic-Uremic Syndrome                          | C3      | DOMINANT  | NM_000064.2    | 98.50% |
| Atypical Hemolytic-Uremic Syndrome                          | CD46    | DOMINANT  | NM_002389.4    | 99.27% |
| Atypical Hemolytic-Uremic Syndrome                          | CFB     | DOMINANT  | NM_001710.5    | 98.11% |

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| Atypical Hemolytic-Uremic Syndrome                       | CFH     | DOMINANT  | NM_000186.3 | 98.32% |
| Atypical Hemolytic-Uremic Syndrome                       | CFI     | DOMINANT  | NM_000204.3 | 99.88% |
| Atypical Hemolytic-Uremic Syndrome                       | THBD    | DOMINANT  | NM_000361.2 | 97.43% |
| Atypical Werner Syndrome                                 | LMNA    | DOMINANT  | NM_005572.3 | 96.33% |
| Auriculocondylar Syndrome                                | PLCB4   | DOMINANT  | NM_000933.3 | 99.62% |
| Autism Spectrum Disorders                                | SHANK2  | DOMINANT  | NM_012309.3 | 99.40% |
| Autism Spectrum Disorders                                | SNRPN   | DOMINANT  | NM_022807.2 | 99.94% |
| Autoimmune Lymphoproliferative Syndrome                  | CASP10  | DOMINANT  | NM_032977.3 | 99.28% |
| Autoimmune Lymphoproliferative Syndrome                  | FAS     | DOMINANT  | NM_000043.4 | 99.88% |
| Autoimmune Lymphoproliferative Syndrome                  | FASLG   | DOMINANT  | NM_000639.1 | 99.62% |
| Autoinflammation, Lipodystrophy, and Dermatitis Syndrome | PSMB8   | RECESSIVE | NM_148919.3 | 99.96% |
| Axenfeld-Rieger Syndrome                                 | PITX2   | DOMINANT  | NM_153427.2 | 99.12% |
| Axonal Neuropathy  | GARS    | DOMINANT  | NM_002047.2 | 99.52% |
| Bardet-Biedl Syndrome                                    | ARL6    | RECESSIVE | NM_177976.1 | 99.79% |
| Bardet-Biedl Syndrome                                    | BBS1    | RECESSIVE | NM_024649.4 | 99.74% |
| Bardet-Biedl Syndrome                                    | BBS10   | RECESSIVE | NM_024685.3 | 99.71% |
| Bardet-Biedl Syndrome                                    | BBS12   | RECESSIVE | NM_152618.2 | 99.89% |
| Bardet-Biedl Syndrome                                    | BBS2    | RECESSIVE | NM_031885.3 | 99.70% |
| Bardet-Biedl Syndrome                                    | BBS4    | RECESSIVE | NM_033028.4 | 99.07% |
| Bardet-Biedl Syndrome                                    | BBS7    | RECESSIVE | NM_176824.2 | 99.15% |
| Bardet-Biedl Syndrome                                    | BBS9    | RECESSIVE | NM_198428.2 | 99.50% |
| Bardet-Biedl Syndrome                                    | CEP290  | RECESSIVE | NM_025114.3 | 99.36% |
| Bardet-Biedl Syndrome                                    | MKKS    | RECESSIVE | NM_018848.3 | 99.99% |
| Bardet-Biedl Syndrome                                    | MKS1    | RECESSIVE | NM_017777.3 | 99.30% |
| Bardet-Biedl Syndrome                                    | SDCCAG8 | RECESSIVE | NM_006642.3 | 98.99% |
| Bardet-Biedl Syndrome                                    | TRIM32  | RECESSIVE | NM_012210.3 | 99.49% |
| Bardet-Biedl Syndrome                                    | TTC8    | RECESSIVE | NM_198309.2 | 99.65% |
| Bardet-Biedl Syndrome                                    | WDPCP   | RECESSIVE | NM_015910.5 | 98.91% |

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| Bare Lymphocyte Syndrome, Type II                  | CIITA  | RECESSIVE | NM_000246.3    | 99.20% |
| Bare Lymphocyte Syndrome, Type II                  | RFX5   | RECESSIVE | NM_000449.3    | 99.56% |
| Bare Lymphocyte Syndrome, Type II                  | RFXAP  | RECESSIVE | NM_000538.3    | 98.26% |
| Bartter Syndrome                                   | BSND   | RECESSIVE | NM_057176.2    | 99.77% |
| Basal Lamellar Drusen                              | CFH    | RECESSIVE | NM_000186.3    | 98.32% |
| Beare-Stevenson Syndrome                           | FGFR2  | DOMINANT  | NM_000141.4    | 97.52% |
| Benign Chronic Pemphigus                           | ATP2C1 | DOMINANT  | NM_014382.3    | 99.61% |
| Benign Familial Neonatal Infantile Seizures        | SCN2A  | DOMINANT  | NM_021007.2    | 98.70% |
| Benign Familial Neonatal Seizures                  | KCNQ3  | DOMINANT  | NM_004519.3    | 97.84% |
| Benign Hereditary Chorea                           | NKX2-1 | DOMINANT  | NM_001079668.2 | 95.23% |
| Benign Neonatal Epilepsy                           | KCNQ3  | DOMINANT  | NM_004519.3    | 97.84% |
| Berardinelli-Seip Congenital Lipodystrophy         | AGPAT2 | RECESSIVE | NM_006412.3    | 95.16% |
| Berardinelli-Seip Congenital Lipodystrophy         | BSCL2  | RECESSIVE | NM_032667.6    | 98.94% |
| Bernard-Soulier Syndrome                           | GP9    | DOMINANT  | NM_000174.3    | 96.48% |
| Best Vitelliform Macular Dystrophy                 | BEST1  | DOMINANT  | NM_004183.3    | 99.21% |
| Beta-Mannosidosis                                  | MANBA  | RECESSIVE | NM_005908.3    | 98.72% |
| Beta-Sarcoglycanopathy                             | SGCB   | RECESSIVE | NM_000232.4    | 98.84% |
| Beta-Thalassemia                                   | HBB    | RECESSIVE | NM_000518.4    | 99.96% |
| Beta-Ureidopropionase Deficiency                   | UPB1   | RECESSIVE | NM_016327.2    | 99.14% |
| BH4-Deficient Hyperphenylalaninemia                | PCBD1  | RECESSIVE | NM_000281.2    | 96.44% |
| BH4-Deficient Hyperphenylalaninemia                | QDPR   | RECESSIVE | NM_000320.2    | 95.78% |
| Bietti Crystalline Dystrophy                       | CYP4V2 | RECESSIVE | NM_207352.3    | 98.99% |
| Biotinidase Deficiency                             | BTD    | RECESSIVE | NM_000060.2    | 99.73% |
| Birk-Barel Mental Retardation Dysmorphism Syndrome | KCNK9  | DOMINANT  | NM_016601.2    | 96.95% |
| Birt-Hogg-Dube Syndrome                            | FLCN   | DOMINANT  | NM_144997.5    | 96.89% |
| Blau Syndrome                                      | NOD2   | DOMINANT  | NM_022162.1    | 99.39% |
| Bloom Syndrome                                     | BLM    | RECESSIVE | NM_000057.2    | 99.93% |
| BMP4-Related Syndromic Microphthalmia              | BMP4   | DOMINANT  | NM_001202.3    | 98.31% |
| Bohring-Opitz Syndrome                             | ASXL1  | DOMINANT  | NM_015338.5    | 95.70% |

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| Bone Mineral Density Variation             | LRP4    | RECESSIVE | NM_002334.3    | 97.69% |
| Bosley-Salih-Alorainy Syndrome             | HOXA1   | RECESSIVE | NM_005522.4    | 99.19% |
| Brachydactyly                              | BMPR1B  | DOMINANT  | NM_001203.2    | 97.27% |
| Brachydactyly                              | GDF5    | DOMINANT  | NM_000557.2    | 98.65% |
| Brachydactyly                              | IHH     | DOMINANT  | NM_002181.3    | 97.64% |
| Brachydactyly                              | ROR2    | DOMINANT  | NM_004560.3    | 98.00% |
| Brachyolmia                                | TRPV4   | RECESSIVE | NM_021625.4    | 97.17% |
| Brain Small Vessel Disease with Hemorrhage | COL4A1  | DOMINANT  | NM_001845.4    | 99.41% |
| Branchiootorenal Spectrum Disorders        | EYA1    | DOMINANT  | NM_000503.4    | 98.57% |
| Branchiootorenal Spectrum Disorders        | SIX1    | DOMINANT  | NM_005982.3    | 98.47% |
| Breast and Ovarian Cancer Susceptibility   | RAD51C  | DOMINANT  | NM_058216.1    | 98.27% |
| Breast and Ovarian Cancer Susceptibility   | RAD51D  | DOMINANT  | NM_002878.3    | 99.29% |
| Breast Cancer                              | BARD1   | RECESSIVE | NM_000465.2    | 98.53% |
| Breast Cancer                              | BRIP1   | DOMINANT  | NM_032043.2    | 98.05% |
| Breast Cancer                              | CHEK2   | DOMINANT  | NM_007194.3    | 96.19% |
| Brittle Cornea Syndrome                    | PRDM5   | RECESSIVE | NM_018699.2    | 99.18% |
| Brittle Cornea Syndrome                    | ZNF469  | RECESSIVE | NM_001127464.1 | 97.33% |
| Brody Myopathy                             | ATP2A1  | DOMINANT  | NM_173201.3    | 99.40% |
| Brooke-Spiegler Syndrome                   | CYLD    | DOMINANT  | NM_015247.2    | 99.42% |
| Bruck Syndrome                             | PLOD2   | RECESSIVE | NM_000935.2    | 99.05% |
| Brugada Syndrome                           | CACNA1C | DOMINANT  | NM_000719.6    | 98.44% |
| Brugada Syndrome                           | CACNB2  | DOMINANT  | NM_201590.2    | 98.72% |
| Brugada Syndrome                           | GPD1L   | DOMINANT  | NM_015141.3    | 99.56% |
| Brugada Syndrome                           | KCNE3   | DOMINANT  | NM_005472.4    | 94.16% |
| Brugada Syndrome                           | SCN1B   | DOMINANT  | NM_001037.4    | 90.69% |
| Brugada Syndrome                           | SCN3B   | DOMINANT  | NM_018400.3    | 99.72% |
| Brugada Syndrome                           | SCN5A   | DOMINANT  | NM_198056.2    | 98.54% |
| Budd-Chiari Syndrome                       | F5      | DOMINANT  | NM_000130.4    | 99.15% |
| Budd-Chiari Syndrome                       | JAK2    | DOMINANT  | NM_004972.3    | 99.18% |



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| Buschke-Ollendorff Syndrome                                | LEMD3    | DOMINANT  | NM_014319.4 | 98.25% |
| Butyrylcholinesterase Deficiency                           | BCHE     | RECESSIVE | NM_000055.2 | 99.95% |
| C Syndrome   | CD96     | DOMINANT  | NM_198196.2 | 99.48% |
| C3 Deficiency  | C3       | RECESSIVE | NM_000064.2 | 98.50% |
| Caffey Disease   | COL1A1   | DOMINANT  | NM_000088.3 | 96.26% |
| Calpainopathy  | CAPN3    | RECESSIVE | NM_000070.2 | 99.52% |
| Campomelic Dysplasia                                       | SOX9     | DOMINANT  | NM_000346.3 | 97.58% |
| Canavan Disease  | ASPA     | RECESSIVE | NM_000049.2 | 99.98% |
| Capillary Malformation-Arteriovenous Malformation Syndrome | RASA1    | DOMINANT  | NM_002890.2 | 97.65% |
| Carbamoylphosphate Synthetase I Deficiency                 | CPS1     | RECESSIVE | NM_001875.4 | 99.64% |
| Cardiofaciocutaneous Syndrome                              | BRAF     | DOMINANT  | NM_004333.4 | 97.81% |
| Cardiofaciocutaneous Syndrome                              | KRAS     | DOMINANT  | NM_004985.3 | 98.29% |
| Cardiofaciocutaneous Syndrome                              | MAP2K1   | DOMINANT  | NM_002755.3 | 98.72% |
| Cardiomyopathy, ARVC                                       | DSC2     | DOMINANT  | NM_024422.3 | 99.67% |
| Cardiomyopathy, ARVC                                       | DSG2     | DOMINANT  | NM_001943.3 | 98.52% |
| Cardiomyopathy, ARVC                                       | DSP      | DOMINANT  | NM_004415.2 | 99.77% |
| Cardiomyopathy, ARVC                                       | JUP      | DOMINANT  | NM_002230.2 | 98.34% |
| Cardiomyopathy, ARVC                                       | PKP2     | DOMINANT  | NM_004572.3 | 97.02% |
| Cardiomyopathy, ARVC                                       | RYR2     | DOMINANT  | NM_001035.2 | 99.18% |
| Cardiomyopathy, ARVC                                       | TGFB3    | DOMINANT  | NM_003239.2 | 99.65% |
| Cardiomyopathy, ARVC                                       | TMEM43   | DOMINANT  | NM_024334.2 | 99.41% |
| Carney Complex   | PRKAR1A  | DOMINANT  | NM_002734.3 | 99.91% |
| Carnitine Palmitoyltransferase II Deficiency               | CPT2     | RECESSIVE | NM_000098.2 | 99.14% |
| Carnitine-Acylcarnitine Translocase Deficiency             | SLC25A20 | RECESSIVE | NM_000387.5 | 99.82% |
| Carpenter Syndrome   | RAB23    | RECESSIVE | NM_183227.1 | 99.98% |
| Caspase 8 Deficiency                                       | CASP8    | RECESSIVE | NM_001228.4 | 99.73% |
| Cataract-Microcornea Syndrome                              | GJA8     | DOMINANT  | NM_005267.4 | 99.35% |
| Cataracts  | BFSP2    | DOMINANT  | NM_003571.2 | 99.85% |

|  |         |           |                |        |
|--|---------|-----------|----------------|--------|
| Cataracts  | CRYGD   | DOMINANT  | NM_006891.3    | 97.96% |
| Cataracts  | PITX2   | DOMINANT  | NM_153427.2    | 99.12% |
| Catecholaminergic Polymorphic Ventricular Tachycardia                              | CASQ2   | DOMINANT  | NM_001232.3    | 99.12% |
| Catecholaminergic Polymorphic Ventricular Tachycardia                              | RYR2    | DOMINANT  | NM_001035.2    | 99.18% |
| Catecholaminergic Polymorphic Ventricular Tachycardia                              | TRDN    | DOMINANT  | NM_006073.3    | 99.51% |
| Caudal Dysgenesis Syndrome   | VANGL1  | DOMINANT  | NM_138959.2    | 98.53% |
| Caveolinopathies   | CAV3    | DOMINANT  | NM_033337.2    | 99.33% |
| Central Core Disease   | RYR1    | DOMINANT  | NM_000540.2    | 97.36% |
| Centronuclear Myopathy, Dominant   | DNM2    | DOMINANT  | NM_001005360.2 | 97.58% |
| Centronuclear Myopathy, Dominant   | MYF6    | DOMINANT  | NM_002469.2    | 99.81% |
| Centronuclear Myopathy, Recessive  | BIN1    | RECESSIVE | NM_139343.2    | 97.70% |
| Cerebellar Ataxia  | SYNE1   | RECESSIVE | NM_033071.3    | 99.70% |
| Cerebellar Ataxia, Cayman type   | ATCAY   | RECESSIVE | NM_033064.4    | 98.58% |
| Cerebellar Hypoplasia  | VLDLR   | RECESSIVE | NM_003383.3    | 95.99% |
| Cerebral Dysgenesis, Neuropathy, Ichthyosis, and Palmoplantar Keratoderma Syndrome | SNAP29  | RECESSIVE | NM_004782.3    | 96.18% |
| Cerebrooculofacioskeletal Syndrome   | ERCC6   | RECESSIVE | NM_000124.2    | 99.64% |
| Cerebrotendinous Xanthomatosis   | CYP27A1 | RECESSIVE | NM_000784.3    | 99.77% |
| Chanarin-Dorfman Syndrome  | ABHD5   | RECESSIVE | NM_016006.4    | 99.29% |
| Char Syndrome  | TFAP2B  | DOMINANT  | NM_003221.3    | 99.08% |
| Charcot-Marie-Tooth with Vocal Cord Paresis  | GDAP1   | RECESSIVE | NM_018972.2    | 99.26% |
| Charcot-Marie-Tooth, Intermediate  | DNM2    | DOMINANT  | NM_001005360.2 | 97.58% |
| Charcot-Marie-Tooth, Intermediate  | GDAP1   | DOMINANT  | NM_018972.2    | 99.26% |
| Charcot-Marie-Tooth, Intermediate  | KARS    | DOMINANT  | NM_001130089.1 | 99.41% |
| Charcot-Marie-Tooth, Intermediate  | MPZ     | DOMINANT  | NM_000530.6    | 98.87% |
| Charcot-Marie-Tooth, Intermediate  | YARS    | DOMINANT  | NM_003680.3    | 98.09% |
| Charcot-Marie-Tooth, Type 1  | EGR2    | DOMINANT  | NM_000399.3    | 99.33% |
| Charcot-Marie-Tooth, Type 1  | LITAF   | DOMINANT  | NM_004862.3    | 99.74% |
| Charcot-Marie-Tooth, Type 1  | MPZ     | DOMINANT  | NM_000530.6    | 98.87% |

|   |         |           |             |        |
|---|---------|-----------|-------------|--------|
| Charcot-Marie-Tooth, Type 1   | NEFL    | DOMINANT  | NM_006158.3 | 99.21% |
| Charcot-Marie-Tooth, Type 1   | PMP22   | DOMINANT  | NM_000304.2 | 99.96% |
| Charcot-Marie-Tooth, Type 2   | AARS    | DOMINANT  | NM_001605.2 | 99.25% |
| Charcot-Marie-Tooth, Type 2   | DYNC1H1 | DOMINANT  | NM_001376.4 | 99.09% |
| Charcot-Marie-Tooth, Type 2   | GARS    | DOMINANT  | NM_002047.2 | 99.52% |
| Charcot-Marie-Tooth, Type 2   | HSPB1   | DOMINANT  | NM_001540.3 | 97.06% |
| Charcot-Marie-Tooth, Type 2   | HSPB8   | DOMINANT  | NM_014365.2 | 98.37% |
| Charcot-Marie-Tooth, Type 2   | KIF1B   | DOMINANT  | NM_015074.3 | 98.68% |
| Charcot-Marie-Tooth, Type 2   | LMNA    | DOMINANT  | NM_005572.3 | 96.33% |
| Charcot-Marie-Tooth, Type 2   | LRSAM1  | DOMINANT  | NM_138361.5 | 98.65% |
| Charcot-Marie-Tooth, Type 2   | MED25   | DOMINANT  | NM_030973.3 | 97.67% |
| Charcot-Marie-Tooth, Type 2   | MFN2    | DOMINANT  | NM_014874.3 | 98.90% |
| Charcot-Marie-Tooth, Type 2   | RAB7A   | DOMINANT  | NM_004637.5 | 98.96% |
| Charcot-Marie-Tooth, Type 2   | TRPV4   | DOMINANT  | NM_021625.4 | 97.17% |
| Charcot-Marie-Tooth, Type 4   | FGD4    | RECESSIVE | NM_139241.2 | 99.68% |
| Charcot-Marie-Tooth, Type 4   | FIG4    | RECESSIVE | NM_014845.5 | 99.84% |
| Charcot-Marie-Tooth, Type 4   | MTMR2   | RECESSIVE | NM_016156.5 | 99.95% |
| Charcot-Marie-Tooth, Type 4   | NDRG1   | RECESSIVE | NM_006096.3 | 98.98% |
| Charcot-Marie-Tooth, Type 4   | PRX     | RECESSIVE | NM_181882.2 | 97.48% |
| Charcot-Marie-Tooth, Type 4   | SBF2    | RECESSIVE | NM_030962.3 | 99.40% |
| Charcot-Marie-Tooth, Type 4   | SH3TC2  | RECESSIVE | NM_024577.3 | 99.34% |
| Charcot-Marie-Tooth, X-linked   | PRPS1   | X_LINKED  | NM_002764.3 | 88.28% |
| CHARGE Syndrome   | CHD7    | DOMINANT  | NM_017780.3 | 98.90% |
| Chediak-Higashi Syndrome  | LYST    | RECESSIVE | NM_000081.2 | 99.72% |
| Cherubism   | SH3BP2  | DOMINANT  | NM_003023.4 | 97.69% |
| Chilblain Lupus   | SAMHD1  | DOMINANT  | NM_015474.3 | 99.80% |
| Childhood Ataxia with Central Nervous System Hypomyelination/Vanishing White Matter | EIF2B1  | RECESSIVE | NM_001414.3 | 98.86% |
| Childhood Ataxia with Central Nervous System  | EIF2B2  | RECESSIVE | NM_014239.3 | 98.62% |

|   |          |           |                |        |
|---|----------|-----------|----------------|--------|
| Hypomyelination/Vanishing White Matter  |          |           |                |        |
| Childhood Ataxia with Central Nervous System Hypomyelination/Vanishing White Matter | EIF2B3   | RECESSIVE | NM_020365.4    | 99.87% |
| Childhood Ataxia with Central Nervous System Hypomyelination/Vanishing White Matter | EIF2B4   | RECESSIVE | NM_015636.3    | 97.88% |
| Childhood Ataxia with Central Nervous System Hypomyelination/Vanishing White Matter | EIF2B5   | RECESSIVE | NM_003907.2    | 99.33% |
| Childhood Restrictive Cardiomyopathy  | ACTA1    | DOMINANT  | NM_001100.3    | 96.57% |
| Childhood Restrictive Cardiomyopathy  | ACTC1    | DOMINANT  | NM_005159.4    | 98.49% |
| Chitotriosidase Deficiency  | CHIT1    | RECESSIVE | NM_003465.2    | 99.81% |
| Cholesterol Ester Storage Disease   | LIPA     | RECESSIVE | NM_000235.2    | 99.79% |
| Chondrocalcinosis   | ANKH     | DOMINANT  | NM_054027.4    | 97.18% |
| Chondrodysplasia  | GDF5     | RECESSIVE | NM_000557.2    | 98.65% |
| Chondrodysplasia  | IMPAD1   | RECESSIVE | NM_017813.4    | 97.50% |
| Chondrodysplasia  | PTH1R    | RECESSIVE | NM_000316.2    | 98.57% |
| Chorea-acanthocytosis   | VPS13A   | RECESSIVE | NM_033305.2    | 99.48% |
| Choreoathetosis, Hypothyroidism, and Neonatal Respiratory Distress                  | NKX2-1   | DOMINANT  | NM_001079668.2 | 95.23% |
| Choroidal Dystrophy   | PRPH2    | DOMINANT  | NM_000322.4    | 99.36% |
| Chronic Granulomatous Disease   | NCF2     | RECESSIVE | NM_000433.3    | 99.98% |
| Chronic Granulomatous Disease   | NCF4     | RECESSIVE | NM_013416.3    | 99.28% |
| Chronic Infantile Neurological Cutaneous and Articular Syndrome                     | NLRP3    | DOMINANT  | NM_004895.4    | 99.48% |
| Citrin Deficiency   | SLC25A13 | RECESSIVE | NM_014251.2    | 98.88% |
| Citrullinemia   | ASS1     | RECESSIVE | NM_054012.3    | 93.61% |
| Citrullinemia   | SLC25A13 | RECESSIVE | NM_014251.2    | 98.88% |
| Cleft Lip +/- Cleft Palate, Autosomal Dominant                                      | BMP4     | DOMINANT  | NM_001202.3    | 98.31% |
| Cleft Lip +/- Cleft Palate, Autosomal Dominant                                      | IRF6     | DOMINANT  | NM_006147.3    | 99.06% |
| Cleft Lip +/- Cleft Palate, Autosomal Dominant                                      | SUMO1    | DOMINANT  | NM_001005781.1 | 98.86% |
| Cleft Lip +/- Cleft Palate, Autosomal Dominant                                      | TP63     | DOMINANT  | NM_003722.4    | 99.84% |

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| Cleft Lip +/- Cleft Palate, Autosomal Recessive  | PVRL1   | RECESSIVE | NM_002855.4    | 96.36% |
| Cleft Palate, X-Linked   | TBX22   | X_LINKED  | NM_001109878.1 | 95.09% |
| Cleidocranial Dysplasia  | RUNX2   | DOMINANT  | NM_001024630.3 | 98.42% |
| Cockayne Syndrome  | ERCC6   | RECESSIVE | NM_000124.2    | 99.64% |
| Cockayne Syndrome  | ERCC8   | RECESSIVE | NM_000082.3    | 98.97% |
| Coenzyme Q10 deficiency, Oculomotor Apraxia Type   | APTX    | RECESSIVE | NM_175073.2    | 99.02% |
| Coenzyme Q10 deficiency, Spinocerebellar Ataxia Type   | ADCK3   | RECESSIVE | NM_020247.4    | 97.82% |
| Coffin-Siris Syndrome  | SMARCA4 | DOMINANT  | NM_001128849.1 | 97.97% |
| Coffin-Siris Syndrome  | SMARCB1 | DOMINANT  | NM_003073.3    | 95.58% |
| Cohen Syndrome   | VPS13B  | RECESSIVE | NM_017890.4    | 99.40% |
| Collagen Type VI-Related Disorders   | COL6A1  | DOMINANT  | NM_001848.2    | 95.68% |
| Collagen Type VI-Related Disorders   | COL6A2  | DOMINANT  | NM_001849.3    | 93.40% |
| Collagen Type VI-Related Disorders   | COL6A3  | DOMINANT  | NM_004369.3    | 99.74% |
| Coloboma, Congenital Heart Disease, Ichthyosiform Dermatitis, Mental Retardation, and Ear Anomalies Syndrome | PIGL    | RECESSIVE | NM_004278.3    | 99.98% |
| Colorectal Cancer  | CHEK2   | DOMINANT  | NM_007194.3    | 96.19% |
| Combined Deficiency of Factor V and Factor VIII  | LMAN1   | RECESSIVE | NM_005570.3    | 99.80% |
| Combined Deficiency of Factor V and Factor VIII  | MCFD2   | RECESSIVE | NM_139279.5    | 98.27% |
| Combined Oxidative Phosphorylation Deficiency  | AARS2   | RECESSIVE | NM_020745.3    | 98.04% |
| Combined Oxidative Phosphorylation Deficiency  | EARS2   | RECESSIVE | NM_001083614.1 | 98.92% |
| Combined Oxidative Phosphorylation Deficiency  | GFM1    | RECESSIVE | NM_024996.5    | 99.89% |
| Combined Oxidative Phosphorylation Deficiency  | MRPS16  | RECESSIVE | NM_016065.3    | 96.03% |
| Combined Oxidative Phosphorylation Deficiency  | MRPS22  | RECESSIVE | NM_020191.2    | 99.86% |
| Combined Oxidative Phosphorylation Deficiency  | TFSM    | RECESSIVE | NM_001172696.1 | 98.80% |
| Combined Oxidative Phosphorylation Deficiency  | TUFM    | RECESSIVE | NM_003321.4    | 98.25% |
| Combined Pituitary Hormone Deficiency, Dominant  | LHX4    | DOMINANT  | NM_033343.3    | 96.63% |
| Combined Pituitary Hormone Deficiency, Dominant  | OTX2    | DOMINANT  | NM_172337.2    | 99.73% |
| Combined Pituitary Hormone Deficiency,   | HESX1   | DOMINANT  | NM_003865.2    | 99.85% |

| Dominant/Recessive                               |           |           |             |        |
|--|-----------|-----------|-------------|--------|
| Combined Pituitary Hormone Deficiency, Recessive | LHX3      | RECESSIVE | NM_014564.3 | 95.82% |
| Combined Pituitary Hormone Deficiency, Recessive | POU1F1    | RECESSIVE | NM_000306.2 | 99.78% |
| Combined Pituitary Hormone Deficiency, Recessive | PROP1     | RECESSIVE | NM_006261.4 | 97.69% |
| Combined Saposin Deficiency                      | PSAP      | RECESSIVE | NM_002778.2 | 99.84% |
| Common Variable Immune Deficiency, Dominant      | TNFRSF13B | DOMINANT  | NM_012452.2 | 97.39% |
| Common Variable Immune Deficiency, Recessive     | CD19      | RECESSIVE | NM_001770.5 | 99.48% |
| Common Variable Immune Deficiency, Recessive     | ICOS      | RECESSIVE | NM_012092.3 | 99.99% |
| Common Variable Immune Deficiency, Recessive     | TNFRSF13C | RECESSIVE | NM_052945.3 | 97.46% |
| Complement Component C2 Deficiency               | C2        | RECESSIVE | NM_000063.4 | 99.90% |
| Cone Dystrophy                                   | GUCA1A    | DOMINANT  | NM_000409.3 | 99.36% |
| Cone-Rod Dystrophy, Dominant                     | CRX       | DOMINANT  | NM_000554.4 | 96.57% |
| Cone-Rod Dystrophy, Dominant                     | PITPNM3   | DOMINANT  | NM_031220.3 | 95.78% |
| Cone-Rod Dystrophy, Dominant                     | PROM1     | DOMINANT  | NM_006017.2 | 99.87% |
| Cone-Rod Dystrophy, Dominant                     | PRPH2     | DOMINANT  | NM_000322.4 | 99.36% |
| Cone-Rod Dystrophy, Dominant                     | RAX2      | DOMINANT  | NM_032753.3 | 98.22% |
| Cone-Rod Dystrophy, Dominant                     | RIMS1     | DOMINANT  | NM_014989.5 | 99.23% |
| Cone-Rod Dystrophy, Dominant                     | UNC119    | DOMINANT  | NM_005148.3 | 97.50% |
| Cone-Rod Dystrophy, Recessive                    | ABCA4     | RECESSIVE | NM_000350.2 | 99.79% |
| Cone-Rod Dystrophy, Recessive                    | ADAM9     | RECESSIVE | NM_003816.2 | 99.19% |
| Cone-Rod Dystrophy, Recessive                    | C8orf37   | RECESSIVE | NM_177965.3 | 98.57% |
| Cone-Rod Dystrophy, Recessive                    | CDHR1     | RECESSIVE | NM_033100.2 | 99.14% |
| Cone-Rod Dystrophy, Recessive                    | PDE6C     | RECESSIVE | NM_006204.3 | 99.96% |
| Cone-Rod Dystrophy, Recessive                    | RPGRIP1   | RECESSIVE | NM_020366.3 | 99.78% |
| Cone-Rod Dystrophy, Recessive                    | SEMA4A    | RECESSIVE | NM_022367.3 | 99.00% |
| Congenital Adrenal Hyperplasia                   | CYP11B1   | RECESSIVE | NM_000497.3 | 96.74% |
| Congenital Adrenal Hyperplasia                   | CYP17A1   | RECESSIVE | NM_000102.3 | 99.04% |
| Congenital Adrenal Hyperplasia                   | HSD3B2    | RECESSIVE | NM_000198.3 | 99.87% |
| Congenital Adrenal Hyperplasia                   | STAR      | RECESSIVE | NM_000349.2 | 98.67% |

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|---|---------|-----------|----------------|--------|
| Congenital Adrenal Insufficiency            | CYP11A1 | DOMINANT  | NM_000781.2    | 99.90% |
| Congenital Afibrinogenemia                  | FGA     | RECESSIVE | NM_021871.2    | 99.96% |
| Congenital Afibrinogenemia                  | FGB     | RECESSIVE | NM_005141.4    | 99.19% |
| Congenital Afibrinogenemia                  | FGG     | RECESSIVE | NM_000509.4    | 99.98% |
| Congenital Amegakaryocytic Thrombocytopenia | MPL     | RECESSIVE | NM_005373.2    | 98.41% |
| Congenital Aural Atresia                    | TSHZ1   | DOMINANT  | NM_005786.5    | 97.11% |
| Congenital Bile Acid Synthesis Defect       | AKR1D1  | RECESSIVE | NM_005989.3    | 99.57% |
| Congenital Bile Acid Synthesis Defect       | CYP7B1  | RECESSIVE | NM_004820.3    | 99.48% |
| Congenital Cataract                         | AGK     | RECESSIVE | NM_018238.3    | 99.36% |
| Congenital Cataract                         | CRYAA   | RECESSIVE | NM_000394.2    | 98.73% |
| Congenital Cataract                         | FYCO1   | RECESSIVE | NM_024513.3    | 98.95% |
| Congenital Cataract                         | TDRD7   | RECESSIVE | NM_014290.2    | 97.26% |
| Congenital Central Hypoventilation Syndrome | PHOX2B  | DOMINANT  | NM_003924.3    | 94.04% |
| Congenital Contractural Arachnodactyly      | FBN2    | DOMINANT  | NM_001999.3    | 99.56% |
| Congenital Disorders of Glycosylation       | ALG11   | RECESSIVE | NM_001004127.2 | 99.96% |
| Congenital Disorders of Glycosylation       | ALG12   | RECESSIVE | NM_024105.3    | 99.55% |
| Congenital Disorders of Glycosylation       | ALG2    | RECESSIVE | NM_033087.3    | 99.72% |
| Congenital Disorders of Glycosylation       | ALG3    | RECESSIVE | NM_005787.5    | 99.73% |
| Congenital Disorders of Glycosylation       | ALG6    | RECESSIVE | NM_013339.3    | 99.15% |
| Congenital Disorders of Glycosylation       | ALG8    | RECESSIVE | NM_024079.4    | 99.71% |
| Congenital Disorders of Glycosylation       | ALG9    | RECESSIVE | NM_024740.2    | 98.56% |
| Congenital Disorders of Glycosylation       | B4GALT1 | RECESSIVE | NM_001497.3    | 97.53% |
| Congenital Disorders of Glycosylation       | COG1    | RECESSIVE | NM_018714.2    | 96.57% |
| Congenital Disorders of Glycosylation       | COG4    | RECESSIVE | NM_015386.2    | 99.62% |
| Congenital Disorders of Glycosylation       | COG5    | RECESSIVE | NM_006348.3    | 99.75% |
| Congenital Disorders of Glycosylation       | COG6    | RECESSIVE | NM_020751.2    | 99.25% |
| Congenital Disorders of Glycosylation       | COG7    | RECESSIVE | NM_153603.3    | 97.08% |
| Congenital Disorders of Glycosylation       | COG8    | RECESSIVE | NM_032382.4    | 98.67% |
| Congenital Disorders of Glycosylation       | DDOST   | RECESSIVE | NM_005216.4    | 97.10% |

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|--|---------|-----------|-------------|--------|
| Congenital Disorders of Glycosylation          | DOLK    | RECESSIVE | NM_014908.3 | 98.59% |
| Congenital Disorders of Glycosylation          | DPAGT1  | RECESSIVE | NM_001382.3 | 99.06% |
| Congenital Disorders of Glycosylation          | DPM1    | RECESSIVE | NM_003859.1 | 99.60% |
| Congenital Disorders of Glycosylation          | DPM3    | RECESSIVE | NM_153741.1 | 99.97% |
| Congenital Disorders of Glycosylation          | MGAT2   | RECESSIVE | NM_002408.3 | 98.19% |
| Congenital Disorders of Glycosylation          | MPDU1   | RECESSIVE | NM_004870.3 | 98.85% |
| Congenital Disorders of Glycosylation          | MPI     | RECESSIVE | NM_002435.1 | 99.90% |
| Congenital Disorders of Glycosylation          | PGM1    | RECESSIVE | NM_002633.2 | 98.32% |
| Congenital Disorders of Glycosylation          | PMM2    | RECESSIVE | NM_000303.2 | 99.34% |
| Congenital Disorders of Glycosylation          | RFT1    | RECESSIVE | NM_052859.3 | 99.19% |
| Congenital Disorders of Glycosylation          | SLC35C1 | RECESSIVE | NM_018389.4 | 95.77% |
| Congenital Disorders of Glycosylation          | SRD5A3  | RECESSIVE | NM_024592.4 | 99.03% |
| Congenital Disorders of Glycosylation          | TUSC3   | RECESSIVE | NM_006765.3 | 99.84% |
| Congenital Dyserythropoietic Anemia            | CDAN1   | DOMINANT  | NM_138477.2 | 98.35% |
| Congenital Dyserythropoietic Anemia            | KLF1    | DOMINANT  | NM_006563.3 | 96.25% |
| Congenital Dyserythropoietic Anemia            | SEC23B  | DOMINANT  | NM_006363.4 | 99.75% |
| Congenital Erythropoietic Porphyrin            | UROS    | RECESSIVE | NM_000375.2 | 99.35% |
| Congenital Fiber-Type Disproportion            | ACTA1   | DOMINANT  | NM_001100.3 | 96.57% |
| Congenital Fiber-Type Disproportion            | TPM3    | DOMINANT  | NM_152263.2 | 98.81% |
| Congenital Fibrosis of the Extraocular Muscles | KIF21A  | DOMINANT  | NM_017641.3 | 99.12% |
| Congenital Finnish Nephrosis                   | NPHS1   | RECESSIVE | NM_004646.3 | 98.02% |
| Congenital Glutamine Deficiency                | GLUL    | RECESSIVE | NM_002065.5 | 98.72% |
| Congenital Hypomyelinating Neuropathy          | MPZ     | DOMINANT  | NM_000530.6 | 98.87% |
| Congenital Hypomyelination                     | MPZ     | DOMINANT  | NM_000530.6 | 98.87% |
| Congenital Hypothyroidism                      | DUOX2   | RECESSIVE | NM_014080.4 | 96.64% |
| Congenital Hypothyroidism                      | IYD     | RECESSIVE | NM_203395.2 | 99.82% |
| Congenital Hypothyroidism                      | PAX8    | RECESSIVE | NM_003466.3 | 98.95% |
| Congenital Hypothyroidism                      | TPO     | RECESSIVE | NM_000547.5 | 99.12% |
| Congenital Hypothyroidism                      | TSHB    | RECESSIVE | NM_000549.3 | 99.97% |



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|---|---------|-----------|----------------|--------|
| Congenital Hypothyroidism                                 | TSHR    | RECESSIVE | NM_000369.2    | 99.89% |
| Congenital Ichthyosis                                     | ABCA12  | RECESSIVE | NM_173076.2    | 99.82% |
| Congenital Ichthyosis                                     | ALOX12B | RECESSIVE | NM_001139.2    | 99.28% |
| Congenital Ichthyosis                                     | ALOXE3  | RECESSIVE | NM_021628.2    | 99.85% |
| Congenital Ichthyosis                                     | CYP4F22 | RECESSIVE | NM_173483.3    | 99.02% |
| Congenital Ichthyosis                                     | NIPAL4  | RECESSIVE | NM_001099287.1 | 99.79% |
| Congenital Ichthyosis                                     | PNPLA1  | RECESSIVE | NM_001145717.1 | 99.44% |
| Congenital Ichthyosis                                     | TGM1    | RECESSIVE | NM_000359.2    | 98.49% |
| Congenital Indifference to Pain                           | SCN9A   | RECESSIVE | NM_002977.3    | 99.43% |
| Congenital Insensitivity to Pain with Anhidrosis          | NTRK1   | RECESSIVE | NM_001012331.1 | 96.95% |
| Congenital Lactase Deficiency                             | LCT     | RECESSIVE | NM_002299.2    | 99.86% |
| Congenital Muscular Dystrophy, alpha-dystroglycan related | ISPD    | RECESSIVE | NM_001101426.3 | 97.40% |
| Congenital Muscular Dystrophy, alpha-dystroglycan related | LARGE   | RECESSIVE | NM_004737.4    | 98.32% |
| Congenital Muscular Dystrophy, alpha-dystroglycan related | POMGNT1 | RECESSIVE | NM_017739.3    | 97.69% |
| Congenital Muscular Dystrophy, alpha-dystroglycan related | POMT2   | RECESSIVE | NM_013382.5    | 98.20% |
| Congenital Muscular Dystrophy, CKHB-related               | CHKB    | RECESSIVE | NM_005198.4    | 99.30% |
| Congenital Muscular Dystrophy, ITGA7-related              | ITGA7   | RECESSIVE | NM_002206.2    | 96.93% |
| Congenital Muscular Dystrophy, LAMA2-related              | LAMA2   | RECESSIVE | NM_000426.3    | 99.86% |
| Congenital Muscular Dystrophy, LMNA-related               | LMNA    | DOMINANT  | NM_005572.3    | 96.33% |
| Congenital Myasthenic Syndrome, Dominant/Recessive        | CHRNA1  | DOMINANT  | NM_000079.3    | 99.50% |
| Congenital Myasthenic Syndrome, Dominant/Recessive        | CHRNB1  | DOMINANT  | NM_000747.2    | 98.50% |
| Congenital Myasthenic Syndrome, Dominant/Recessive        | CHRND   | DOMINANT  | NM_000751.2    | 98.75% |
| Congenital Myasthenic Syndrome, Dominant/Recessive        | CHRNE   | DOMINANT  | NM_000080.3    | 97.70% |
| Congenital Myasthenic Syndrome, Recessive                 | COLQ    | RECESSIVE | NM_005677.3    | 99.52% |
| Congenital Myasthenic Syndrome, Recessive                 | GFPT1   | RECESSIVE | NM_002056.3    | 98.71% |
| Congenital Myasthenic Syndrome, Recessive                 | MUSK    | RECESSIVE | NM_005592.3    | 99.98% |
| Congenital Myasthenic Syndrome, Recessive                 | RAPSN   | RECESSIVE | NM_005055.4    | 98.74% |
| Congenital Myasthenic Syndrome, Recessive                 | SCN4A   | RECESSIVE | NM_000334.4    | 97.03% |
| Congenital Neuromuscular Disease with Uniform Type 1      | RYR1    | DOMINANT  | NM_000540.2    | 97.36% |

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| Congenital Nuclear Cataract                      | CRYBB1  | RECESSIVE | NM_001887.3    | 99.01% |
| Congenital Nuclear Cataract                      | CRYBB3  | RECESSIVE | NM_004076.3    | 97.42% |
| Congenital Stationary Night Blindness, Dominant  | GNAT1   | DOMINANT  | NM_144499.2    | 99.54% |
| Congenital Stationary Night Blindness, Dominant  | PDE6B   | DOMINANT  | NM_000283.3    | 97.01% |
| Congenital Stationary Night Blindness, Dominant  | RHO     | DOMINANT  | NM_000539.3    | 99.45% |
| Congenital Stationary Night Blindness, Recessive | CABP4   | RECESSIVE | NM_145200.3    | 97.64% |
| Congenital Stationary Night Blindness, Recessive | GPR179  | RECESSIVE | NM_001004334.2 | 99.21% |
| Congenital Stationary Night Blindness, Recessive | SLC24A1 | RECESSIVE | NM_004727.2    | 98.79% |
| Congenital Stationary Night Blindness, Recessive | TRPM1   | RECESSIVE | NM_002420.5    | 99.73% |
| Congenital Stromal Corneal Dystrophy             | DCN     | DOMINANT  | NM_001920.3    | 99.96% |
| Congenital Sucrase-Isomaltase Deficiency         | SI      | RECESSIVE | NM_001041.3    | 99.21% |
| Congenital Vertical Talus                        | HOXD10  | DOMINANT  | NM_002148.3    | 95.31% |
| Corneal Dystrophy, Dominant                      | TGFBI   | DOMINANT  | NM_000358.2    | 98.44% |
| Corneal Dystrophy, Dominant/Recessive            | TACSTD2 | RECESSIVE | NM_002353.2    | 97.25% |
| Corneal Dystrophy, Recessive                     | CYP4V2  | RECESSIVE | NM_207352.3    | 98.99% |
| Corneal Dystrophy, Recessive                     | SLC4A11 | RECESSIVE | NM_032034.3    | 97.53% |
| Corneal Fleck Dystrophy                          | PIKFYVE | DOMINANT  | NM_015040.3    | 99.79% |
| Cornelia de Lange Syndrome                       | NIPBL   | DOMINANT  | NM_133433.3    | 98.16% |
| Cornelia de Lange Syndrome                       | SMC1A   | DOMINANT  | NM_006306.2    | 95.69% |
| Cornelia de Lange Syndrome                       | SMC3    | DOMINANT  | NM_005445.3    | 99.68% |
| Cortical Dysplasia-Focal Epilepsy Syndrome       | CNTNAP2 | RECESSIVE | NM_014141.5    | 99.23% |
| Cortical Pulverulent Cataract                    | LIM2    | RECESSIVE | NM_030657.3    | 99.81% |
| Corticosterone Methyloxidase Type I Deficiency   | CYP11B2 | RECESSIVE | NM_000498.3    | 95.83% |
| Corticosterone Methyloxidase Type II Deficiency  | CYP11B2 | RECESSIVE | NM_000498.3    | 95.83% |
| Cranioectodermal Dysplasia                       | IFT122  | RECESSIVE | NM_052985.2    | 96.37% |
| Cranioectodermal Dysplasia                       | IFT43   | RECESSIVE | NM_052873.2    | 99.69% |
| Cranioectodermal Dysplasia                       | WDR19   | RECESSIVE | NM_025132.3    | 99.31% |
| Cranioectodermal Dysplasia                       | WDR35   | RECESSIVE | NM_001006657.1 | 99.96% |

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| Craniofacial-Deafness-Hand Syndrome   | PAX3     | DOMINANT  | NM_181457.3 | 97.63% |
| Craniometaphyseal Dysplasia   | ANKH     | DOMINANT  | NM_054027.4 | 97.18% |
| Craniosynostosis  | FGFR1    | DOMINANT  | NM_023110.2 | 98.79% |
| Craniosynostosis  | FGFR2    | DOMINANT  | NM_000141.4 | 97.52% |
| Craniosynostosis  | MSX2     | DOMINANT  | NM_002449.4 | 97.31% |
| Creatine Deficiency Syndromes   | GAMT     | RECESSIVE | NM_000156.4 | 97.97% |
| Creatine Deficiency Syndromes   | GATM     | RECESSIVE | NM_001482.2 | 99.69% |
| Crigler-Najjar Syndrome   | UGT1A1   | RECESSIVE | NM_000463.2 | 99.91% |
| Crohn Disease   | NOD2     | DOMINANT  | NM_022162.1 | 99.39% |
| Crouzon Syndrome  | FGFR2    | DOMINANT  | NM_000141.4 | 97.52% |
| Cutaneous Malignant Melanoma, Dominant  | CDK4     | DOMINANT  | NM_000075.2 | 99.37% |
| Cutaneous Malignant Melanoma, Recessive                                       | MC1R     | RECESSIVE | NM_002386.3 | 95.94% |
| Cutis Laxa with Severe Pulmonary, Gastrointestinal, and Urinary Abnormalities | LTBP4    | RECESSIVE | NM_003573.2 | 95.27% |
| Cutis Laxa, Dominant  | ELN      | DOMINANT  | NM_000501.2 | 97.00% |
| Cutis Laxa, Dominant/Recessive  | FBLN5    | DOMINANT  | NM_006329.3 | 98.82% |
| Cutis Laxa, Recessive   | ALDH18A1 | RECESSIVE | NM_002860.3 | 99.75% |
| Cutis Laxa, Recessive   | ATP6V0A2 | RECESSIVE | NM_012463.3 | 98.78% |
| Cutis Laxa, Recessive   | PYCR1    | RECESSIVE | NM_006907.2 | 99.38% |
| Cystathioninuria  | CTH      | RECESSIVE | NM_001902.5 | 98.95% |
| Cystic Fibrosis   | CFTR     | RECESSIVE | NM_000492.3 | 99.85% |
| Cystic Fibrosis-Like Syndrome   | SCNN1A   | DOMINANT  | NM_001038.5 | 97.55% |
| Cystinosis  | CTNS     | RECESSIVE | NM_004937.2 | 97.66% |
| Cystinuria  | SLC3A1   | RECESSIVE | NM_000341.3 | 99.94% |
| Cystinuria  | SLC7A9   | RECESSIVE | NM_014270.4 | 99.62% |
| Cytochrome P450 Oxidoreductase Deficiency                                     | POR      | RECESSIVE | NM_000941.2 | 96.88% |
| D-2-Hydroxyglutaric Aciduria  | D2HGDH   | DOMINANT  | NM_152783.3 | 95.88% |
| Danon Disease   | LAMP2    | X_LINKED  | NM_002294.2 | 94.75% |
| Darier-White Disease  | ATP2A2   | DOMINANT  | NM_001681.3 | 96.99% |

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| Delta-Sarcoglycanopathy   | SGCD    | RECESSIVE | NM_000337.5    | 99.33%  |
| Dementia, Deafness, and Sensory Neuropathy  | DNMT1   | DOMINANT  | NM_001130823.1 | 99.26%  |
| Dense Deposit Disease / Membranoproliferative Glomerulonephritis Type II            | CFH     | RECESSIVE | NM_000186.3    | 98.32%  |
| Dense Deposit Disease / Membranoproliferative Glomerulonephritis Type II            | CFHR5   | RECESSIVE | NM_030787.3    | 98.77%  |
| Dent Disease  | CLCN5   | X_LINKED  | NM_000084.2    | 96.78%  |
| Desbuquois Dysplasia  | CANT1   | RECESSIVE | NM_138793.3    | 96.43%  |
| Desminopathy  | DES     | DOMINANT  | NM_001927.3    | 96.15%  |
| Desmosterolosis   | DHCR24  | RECESSIVE | NM_014762.3    | 99.41%  |
| Diabetes Mellitus, Insulin-Resistant, with Acanthosis Nigricans                     | INSR    | DOMINANT  | NM_000208.2    | 97.67%  |
| Diabetes Mellitus, Neonatal, with Congenital Hypothyroidism                         | GLIS3   | RECESSIVE | NM_001042413.1 | 98.52%  |
| Diabetes Mellitus, Noninsulin-Dependent, with Acanthosis Nigricans and Hypertension | PPARG   | DOMINANT  | NM_015869.4    | 99.99%  |
| Diabetes, Transient Neonatal  | ZFP57   | RECESSIVE | NM_001109809.2 | 99.81%  |
| Diamond-Blackfan Anemia   | RPL11   | DOMINANT  | NM_000975.3    | 99.99%  |
| Diamond-Blackfan Anemia   | RPL35A  | DOMINANT  | NM_000996.2    | 100.00% |
| Diamond-Blackfan Anemia   | RPL5    | DOMINANT  | NM_000969.3    | 99.52%  |
| Diamond-Blackfan Anemia   | RPS10   | DOMINANT  | NM_001014.4    | 99.53%  |
| Diamond-Blackfan Anemia   | RPS19   | DOMINANT  | NM_001022.3    | 99.07%  |
| Diamond-Blackfan Anemia   | RPS24   | DOMINANT  | NM_033022.3    | 99.33%  |
| Diamond-Blackfan Anemia   | RPS26   | DOMINANT  | NM_001029.3    | 99.82%  |
| Diamond-Blackfan Anemia   | RPS7    | DOMINANT  | NM_001011.3    | 99.76%  |
| Diaphanospondylodysostosis  | BMPER   | RECESSIVE | NM_133468.4    | 97.30%  |
| Diaphyseal Medullary Stenosis with Malignant Fibrous Histiocytoma                   | MTAP    | DOMINANT  | NM_002451.3    | 98.90%  |
| Diarrhea with Microvillus Atrophy   | MYO5B   | RECESSIVE | NM_001080467.2 | 97.26%  |
| Diastrophic Dysplasia   | SLC26A2 | RECESSIVE | NM_000112.3    | 99.63%  |

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| Dicarboxylicaminoaciduria                       | SLC1A1 | RECESSIVE | NM_004170.5    | 99.15% |
| Diffuse Mesangial Sclerosis Syndromes (DMS)     | WT1    | DOMINANT  | NM_024426.4    | 95.44% |
| Dihydropyrimidinase Deficiency                  | DPYS   | RECESSIVE | NM_001385.2    | 99.14% |
| Dihydropyrimidine Dehydrogenase Deficiency      | DPYD   | RECESSIVE | NM_000110.3    | 99.68% |
| Dilated Cardiomyopathy with Quadriceps Myopathy | LMNA   | DOMINANT  | NM_005572.3    | 96.33% |
| Dilated Cardiomyopathy, Dominant                | ABCC9  | DOMINANT  | NM_005691.2    | 99.66% |
| Dilated Cardiomyopathy, Dominant                | ACTC1  | DOMINANT  | NM_005159.4    | 98.49% |
| Dilated Cardiomyopathy, Dominant                | ACTN2  | DOMINANT  | NM_001103.2    | 97.96% |
| Dilated Cardiomyopathy, Dominant                | ANKRD1 | DOMINANT  | NM_014391.2    | 97.05% |
| Dilated Cardiomyopathy, Dominant                | BAG3   | DOMINANT  | NM_004281.3    | 97.40% |
| Dilated Cardiomyopathy, Dominant                | CSRP3  | DOMINANT  | NM_003476.4    | 97.72% |
| Dilated Cardiomyopathy, Dominant                | CTF1   | DOMINANT  | NM_001330.3    | 88.41% |
| Dilated Cardiomyopathy, Dominant                | DES    | DOMINANT  | NM_001927.3    | 96.15% |
| Dilated Cardiomyopathy, Dominant                | DSG2   | DOMINANT  | NM_001943.3    | 98.52% |
| Dilated Cardiomyopathy, Dominant                | EYA4   | DOMINANT  | NM_172105.3    | 99.82% |
| Dilated Cardiomyopathy, Dominant                | LDB3   | DOMINANT  | NM_001080116.1 | 99.33% |
| Dilated Cardiomyopathy, Dominant                | LMNA   | DOMINANT  | NM_005572.3    | 96.33% |
| Dilated Cardiomyopathy, Dominant                | MYBPC3 | DOMINANT  | NM_000256.3    | 98.60% |
| Dilated Cardiomyopathy, Dominant                | MYH6   | DOMINANT  | NM_002471.3    | 98.59% |
| Dilated Cardiomyopathy, Dominant                | MYH7   | DOMINANT  | NM_000257.2    | 99.12% |
| Dilated Cardiomyopathy, Dominant                | NEXN   | DOMINANT  | NM_144573.3    | 99.09% |
| Dilated Cardiomyopathy, Dominant                | PLN    | DOMINANT  | NM_002667.3    | 99.99% |
| Dilated Cardiomyopathy, Dominant                | PSEN1  | DOMINANT  | NM_000021.3    | 99.77% |
| Dilated Cardiomyopathy, Dominant                | PSEN2  | DOMINANT  | NM_000447.2    | 98.87% |
| Dilated Cardiomyopathy, Dominant                | RBM20  | DOMINANT  | NM_001134363.1 | 99.49% |
| Dilated Cardiomyopathy, Dominant                | SCN5A  | DOMINANT  | NM_198056.2    | 98.54% |
| Dilated Cardiomyopathy, Dominant                | SGCD   | DOMINANT  | NM_000337.5    | 99.33% |
| Dilated Cardiomyopathy, Dominant                | TCAP   | DOMINANT  | NM_003673.3    | 98.58% |
| Dilated Cardiomyopathy, Dominant                | TMPO   | DOMINANT  | NM_003276.2    | 98.51% |

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| Dilated Cardiomyopathy, Dominant                              | TNNC1    | DOMINANT  | NM_003280.2    | 98.67% |
| Dilated Cardiomyopathy, Dominant                              | TNNT2    | DOMINANT  | NM_001001430.1 | 99.40% |
| Dilated Cardiomyopathy, Dominant                              | TPM1     | DOMINANT  | NM_001018005.1 | 97.66% |
| Dilated Cardiomyopathy, Dominant                              | TTN      | DOMINANT  | NM_133378.4    | 99.55% |
| Dilated Cardiomyopathy, Dominant                              | VCL      | DOMINANT  | NM_014000.2    | 99.09% |
| Dilated Cardiomyopathy, Recessive                             | FKTN     | RECESSIVE | NM_001079802.1 | 99.86% |
| Dilated Cardiomyopathy, Recessive                             | TNNI3    | RECESSIVE | NM_000363.4    | 98.74% |
| Dilated Cardiomyopathy, X-Linked                              | DMD      | X_LINKED  | NM_004006.2    | 94.87% |
| Dilated Cardiomyopathy, X-Linked                              | TAZ      | X_LINKED  | NM_000116.3    | 90.55% |
| Disorders of Intracellular Cobalamin Metabolism               | LMBRD1   | RECESSIVE | NM_018368.3    | 98.54% |
| Disorders of Intracellular Cobalamin Metabolism               | MMACHC   | RECESSIVE | NM_015506.2    | 96.82% |
| Disorders of Intracellular Cobalamin Metabolism               | MMADHC   | RECESSIVE | NM_015702.2    | 99.95% |
| Disorders of Intracellular Cobalamin Metabolism               | MTR      | RECESSIVE | NM_000254.2    | 99.40% |
| Disorders of Intracellular Cobalamin Metabolism               | MTRR     | RECESSIVE | NM_002454.2    | 99.86% |
| Distal Arthrogryposis   | MYBPC1   | DOMINANT  | NM_002465.3    | 99.80% |
| Distal Arthrogryposis   | MYH3     | DOMINANT  | NM_002470.3    | 99.45% |
| Distal Arthrogryposis Multiplex Congenita                     | TNNI2    | DOMINANT  | NM_003282.3    | 96.15% |
| Distal Arthrogryposis Multiplex Congenita                     | TNNT3    | DOMINANT  | NM_006757.3    | 99.33% |
| Distal Congenital Nonprogressive Spinal Muscular Atrophy      | TRPV4    | DOMINANT  | NM_021625.4    | 97.17% |
| Distal Hereditary Motor Neuronopathy                          | DCTN1    | DOMINANT  | NM_004082.4    | 99.86% |
| Distal Hereditary Motor Neuronopathy                          | HSPB1    | DOMINANT  | NM_001540.3    | 97.06% |
| Distal Hereditary Motor Neuronopathy                          | HSPB3    | DOMINANT  | NM_006308.2    | 97.81% |
| Distal Hereditary Motor Neuronopathy                          | HSPB8    | DOMINANT  | NM_014365.2    | 98.37% |
| Distal Myopathy   | MATR3    | DOMINANT  | NM_199189.2    | 98.61% |
| Distal Renal Tubular Acidosis with Progressive Nerve Deafness | ATP6V1B1 | RECESSIVE | NM_001692.3    | 98.98% |
| Distal Renal Tubular Acidosis, Dominant                       | SLC4A1   | DOMINANT  | NM_000342.3    | 97.69% |
| Distal Renal Tubular Acidosis, Recessive                      | ATP6VOA4 | RECESSIVE | NM_020632.2    | 99.74% |
| Distal Spinal Muscular Atrophy                                | GARS     | DOMINANT  | NM_002047.2    | 99.52% |

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| Distal Spinal Muscular Atrophy   | PLEKHG5  | RECESSIVE | NM_020631.4    | 95.76% |
| Donnai-Barrow Syndrome   | LRP2     | RECESSIVE | NM_004525.2    | 99.52% |
| Donohue Syndrome   | INSR     | RECESSIVE | NM_000208.2    | 97.67% |
| Dopamine Beta-Hydroxylase Deficiency   | DBH      | RECESSIVE | NM_000787.3    | 97.73% |
| Dopa-Responsive Dystonia   | GCH1     | DOMINANT  | NM_000161.2    | 98.40% |
| Dopa-Responsive Dystonia   | SPR      | DOMINANT  | NM_003124.4    | 99.62% |
| Doyme Honeycomb Retinal Dystrophy  | EFEMP1   | DOMINANT  | NM_001039348.2 | 99.35% |
| Dravet Syndrome  | GABRG2   | DOMINANT  | NM_000816.3    | 99.93% |
| Dravet Syndrome  | SCN9A    | DOMINANT  | NM_002977.3    | 99.43% |
| DRPLA  | ATN1     | DOMINANT  | NM_001007026.1 | 96.76% |
| Duane Syndrome   | CHN1     | DOMINANT  | NM_001822.5    | 96.75% |
| Dubin-Johnson Syndrome   | ABCC2    | RECESSIVE | NM_000392.3    | 99.58% |
| Dyggve-Melchior-Clausen Syndrome   | DYM      | RECESSIVE | NM_017653.3    | 99.04% |
| Dysalbuminemic Hyperthyroxinemia   | ALB      | DOMINANT  | NM_000477.5    | 99.99% |
| Dyschromatosis Symmetrica Hereditaria  | ADAR     | DOMINANT  | NM_001111.4    | 99.10% |
| Dyskeratosis Congenita, Dominant   | TINF2    | DOMINANT  | NM_001099274.1 | 99.77% |
| Dyskeratosis Congenita, Recessive  | CTC1     | RECESSIVE | NM_025099.5    | 99.22% |
| Dyskeratosis Congenita, Recessive  | NHP2     | RECESSIVE | NM_017838.3    | 97.99% |
| Dyskeratosis Congenita, Recessive  | NOP10    | RECESSIVE | NM_018648.3    | 98.96% |
| Dyskeratosis Congenita, Recessive  | WRAP53   | RECESSIVE | NM_018081.2    | 99.09% |
| Dyssegmental Dysplasia   | HSPG2    | RECESSIVE | NM_005529.5    | 96.57% |
| Dystonia   | PRKRA    | DOMINANT  | NM_003690.4    | 99.45% |
| Dystonia   | SLC2A1   | DOMINANT  | NM_006516.2    | 98.39% |
| Dystonia   | THAP1    | DOMINANT  | NM_018105.2    | 98.59% |
| Dystonia/Parkinsonism, Hypermanganesemia,<br>Polycythemia, and Chronic Liver Disease | SLC30A10 | RECESSIVE | NM_018713.2    | 97.84% |
| Dystrophic Epidermolysis Bullosa   | COL7A1   | DOMINANT  | NM_000094.3    | 98.71% |
| Early Infantile Epileptic Encephalopathy, Autosomal<br>Dominant                      | SCN2A    | DOMINANT  | NM_021007.2    | 98.70% |

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| Early Infantile Epileptic Encephalopathy, Autosomal Dominant   | SCN8A    | DOMINANT  | NM_014191.3    | 98.58% |
| Early Infantile Epileptic Encephalopathy, Autosomal Dominant   | SPTAN1   | DOMINANT  | NM_001130438.2 | 99.32% |
| Early Infantile Epileptic Encephalopathy, Autosomal Dominant   | STXBP1   | DOMINANT  | NM_003165.3    | 98.02% |
| Early Infantile Epileptic Encephalopathy, Autosomal Recessive  | PLCB1    | RECESSIVE | NM_015192.2    | 99.85% |
| Early Infantile Epileptic Encephalopathy, Autosomal Recessive  | SLC25A22 | RECESSIVE | NM_024698.5    | 97.80% |
| Early-Onset Primary Dystonia                                   | TOR1A    | DOMINANT  | NM_000113.2    | 98.82% |
| Ectodermal Dysplasia, Anhidrotic, with T-cell Immunodeficiency | NFKBIA   | DOMINANT  | NM_020529.2    | 98.11% |
| Ectodermal Dysplasia/Skin Fragility Syndrome                   | DSP      | RECESSIVE | NM_004415.2    | 99.77% |
| Ectodermal Dysplasia/Skin Fragility Syndrome                   | PKP1     | RECESSIVE | NM_001005337.2 | 99.04% |
| Ectopia Lentis   | ADAMTSL4 | RECESSIVE | NM_019032.4    | 98.41% |
| Ectopia Lentis   | FBN1     | RECESSIVE | NM_000138.4    | 99.59% |
| Ectrodactyly   | TP63     | DOMINANT  | NM_003722.4    | 99.84% |
| EEM Syndrome   | CDH3     | RECESSIVE | NM_001793.4    | 98.64% |
| Ehlers-Danlos Syndrome, Arthrochalasia Type                    | ADAMTS2  | DOMINANT  | NM_014244.4    | 95.31% |
| Ehlers-Danlos Syndrome, Arthrochalasia Type                    | COL1A2   | DOMINANT  | NM_000089.3    | 98.95% |
| Ehlers-Danlos Syndrome, Classic                                | COL1A1   | DOMINANT  | NM_000088.3    | 96.26% |
| Ehlers-Danlos Syndrome, Classic                                | COL5A1   | DOMINANT  | NM_000093.3    | 97.68% |
| Ehlers-Danlos Syndrome, Classic                                | COL5A2   | DOMINANT  | NM_000393.3    | 99.52% |
| Ehlers-Danlos Syndrome, Kyphoscoliotic Form                    | PLOD1    | RECESSIVE | NM_000302.3    | 97.78% |
| Ehlers-Danlos Syndrome, Vascular Type                          | COL3A1   | DOMINANT  | NM_000090.3    | 99.78% |
| Elliptocytosis   | SPTA1    | DOMINANT  | NM_003126.2    | 99.65% |
| Elliptocytosis   | SPTB     | DOMINANT  | NM_000347.5    | 98.26% |
| Ellis-van Creveld Syndrome                                     | EVC      | RECESSIVE | NM_153717.2    | 95.39% |
| Ellis-van Creveld Syndrome                                     | EVC2     | RECESSIVE | NM_147127.4    | 98.46% |



|  |        |           |                |        |
|--|--------|-----------|----------------|--------|
| Emery-Dreifuss Muscular Dystrophy          | LMNA   | DOMINANT  | NM_005572.3    | 96.33% |
| Emery-Dreifuss Muscular Dystrophy          | SYNE1  | DOMINANT  | NM_033071.3    | 99.70% |
| Emery-Dreifuss Muscular Dystrophy          | SYNE2  | DOMINANT  | NM_182914.2    | 99.46% |
| Endocardial Fibroelastosis                 | TAZ    | DOMINANT  | NM_000116.3    | 90.55% |
| Enhanced S-Cone Syndrome                   | NR2E3  | RECESSIVE | NM_014249.2    | 98.63% |
| Enlarged Parietal Foramina                 | ALX4   | DOMINANT  | NM_021926.3    | 98.09% |
| Enlarged Parietal Foramina                 | MSX2   | DOMINANT  | NM_002449.4    | 97.31% |
| Epidermolysis Bullosa Simplex              | KRT5   | DOMINANT  | NM_000424.3    | 97.06% |
| Epidermolysis Bullosa with Pyloric Atresia | ITGA6  | RECESSIVE | NM_000210.2    | 99.82% |
| Epidermolysis Bullosa with Pyloric Atresia | ITGB4  | RECESSIVE | NM_001005731.1 | 96.66% |
| Epidermolysis Bullosa, Lethal Acantholytic | DSP    | RECESSIVE | NM_004415.2    | 99.77% |
| Epidermolytic Hyperkeratosis               | KRT1   | DOMINANT  | NM_006121.3    | 96.60% |
| Epidermolytic Palmoplantar Keratoderma     | KRT9   | DOMINANT  | NM_000226.3    | 96.94% |
| Epilepsy with Neurodevelopmental Defects   | GRIN2A | DOMINANT  | NM_000833.3    | 99.38% |
| Epileptic Encephalopathy                   | MAPK10 | DOMINANT  | NM_138982.2    | 99.81% |
| Epimerase Deficiency Galactosemia          | GALE   | RECESSIVE | NM_000403.3    | 97.56% |
| Episodic Ataxia                            | CACNB4 | DOMINANT  | NM_000726.3    | 99.76% |
| Episodic Ataxia                            | KCNA1  | DOMINANT  | NM_000217.2    | 98.67% |
| Episodic Ataxia                            | SLC1A3 | DOMINANT  | NM_004172.4    | 99.88% |
| Epstein Syndrome                           | MYH9   | DOMINANT  | NM_002473.4    | 99.28% |
| Erosive Vitreoretinopathy                  | VCAN   | DOMINANT  | NM_004385.4    | 99.60% |
| Erythrocyte AMP Deaminase Deficiency       | AMPD3  | RECESSIVE | NM_001025389.1 | 98.97% |
| Erythrokeratoderma Variabilis              | GJB3   | DOMINANT  | NM_024009.2    | 96.05% |
| Erythropoietic Protoporphyrin              | FECH   | DOMINANT  | NM_000140.3    | 98.21% |
| Escobar Syndrome                           | CHRNA3 | RECESSIVE | NM_005199.4    | 96.52% |
| Essential Fructosuria                      | KHK    | RECESSIVE | NM_000221.2    | 98.46% |
| Essential Thrombocythemia                  | MPL    | DOMINANT  | NM_005373.2    | 98.41% |
| Essential Thrombocythemia                  | THPO   | DOMINANT  | NM_000460.2    | 99.93% |
| Ethylmalonic Encephalopathy                | ETHE1  | RECESSIVE | NM_014297.3    | 98.86% |

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|---|---------|-----------|-------------|---------|
| Exocrine Pancreatic Insufficiency, Dyserythropoietic Anemia, and Calvarial Hyperostosis | COX4I2  | RECESSIVE | NM_032609.2 | 99.59%  |
| Fabry Disease   | GLA     | X_LINKED  | NM_000169.2 | 96.24%  |
| Factor V Cambridge Thrombophilia  | F5      | DOMINANT  | NM_000130.4 | 99.15%  |
| Factor V Deficiency   | F5      | RECESSIVE | NM_000130.4 | 99.15%  |
| Factor V Leiden Thrombophilia   | F5      | DOMINANT  | NM_000130.4 | 99.15%  |
| Factor V R2 Mutation Thrombophilia  | F5      | DOMINANT  | NM_000130.4 | 99.15%  |
| Factor VII Deficiency   | F7      | RECESSIVE | NM_000131.3 | 90.75%  |
| Factor VII Marburg I Variant Thrombophilia  | HABP2   | DOMINANT  | NM_004132.3 | 99.73%  |
| Factor X Deficiency   | F10     | RECESSIVE | NM_000504.3 | 98.91%  |
| Factor XI Deficiency  | F11     | DOMINANT  | NM_000128.3 | 99.50%  |
| Factor XII Deficiency   | F12     | DOMINANT  | NM_000505.3 | 98.74%  |
| Factor XIII Subunit A Deficiency  | F13A1   | RECESSIVE | NM_000129.3 | 99.76%  |
| Factor XIII Subunit B Deficiency  | F13B    | RECESSIVE | NM_001994.2 | 99.82%  |
| Familial Atrial Fibrillation  | ABCC9   | DOMINANT  | NM_005691.2 | 99.66%  |
| Familial Atrial Fibrillation  | GJA5    | DOMINANT  | NM_005266.5 | 99.89%  |
| Familial Atrial Fibrillation  | KCNA5   | DOMINANT  | NM_002234.3 | 97.79%  |
| Familial Atrial Fibrillation  | KCNE2   | DOMINANT  | NM_172201.1 | 100.00% |
| Familial Atrial Fibrillation  | KCNJ2   | DOMINANT  | NM_000891.2 | 98.32%  |
| Familial Atrial Fibrillation  | KCNQ1   | DOMINANT  | NM_000218.2 | 92.10%  |
| Familial Atypical Mycobacteriosis, Autosomal Dominant                                   | STAT1   | DOMINANT  | NM_007315.3 | 99.81%  |
| Familial Atypical Mycobacteriosis, Autosomal Recessive                                  | IFNGR1  | RECESSIVE | NM_000416.2 | 99.55%  |
| Familial Atypical Mycobacteriosis, Autosomal Recessive                                  | IL12B   | RECESSIVE | NM_002187.2 | 99.64%  |
| Familial Atypical Mycobacteriosis, Autosomal Recessive                                  | IL12RB1 | RECESSIVE | NM_005535.1 | 98.50%  |
| Familial Atypical Mycobacteriosis, Autosomal Recessive                                  | TYK2    | RECESSIVE | NM_003331.4 | 98.05%  |
| Familial Bone Marrow Failure  | SRP72   | DOMINANT  | NM_006947.3 | 96.41%  |
| Familial Candidiasis, Dominant  | IL17F   | DOMINANT  | NM_052872.3 | 99.84%  |
| Familial Candidiasis, Recessive   | IL17RA  | RECESSIVE | NM_014339.5 | 98.31%  |
| Familial Cerebral Cavernous Malformation  | KRIT1   | DOMINANT  | NM_194456.1 | 99.20%  |

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| Familial Cerebral Cavernous Malformation                                 | PDCD10   | DOMINANT  | NM_145860.1    | 99.44% |
| Familial Chloride Diarrhea   | SLC26A3  | RECESSIVE | NM_000111.2    | 99.99% |
| Familial Cold Autoinflammatory Syndrome                                  | NLRP12   | DOMINANT  | NM_144687.2    | 98.84% |
| Familial Cold Autoinflammatory Syndrome                                  | NLRP3    | DOMINANT  | NM_004895.4    | 99.48% |
| Familial Cylindromatosis   | CYLD     | DOMINANT  | NM_015247.2    | 99.42% |
| Familial Dysautonomia  | IKBKAP   | RECESSIVE | NM_003640.3    | 99.55% |
| Familial Encephalopathy with Neuroserpin Inclusion Bodies                | SERPINI1 | DOMINANT  | NM_005025.4    | 99.98% |
| Familial Erythrocytosis  | EGLN1    | DOMINANT  | NM_022051.2    | 97.05% |
| Familial Erythrocytosis  | EPAS1    | DOMINANT  | NM_001430.4    | 98.07% |
| Familial Erythrocytosis  | EPOR     | DOMINANT  | NM_000121.3    | 98.88% |
| Familial Exudative Vitreoretinopathy                                     | FZD4     | DOMINANT  | NM_012193.3    | 99.42% |
| Familial Exudative Vitreoretinopathy                                     | TSPAN12  | DOMINANT  | NM_012338.3    | 97.51% |
| Familial Febrile Seizures  | SCN9A    | DOMINANT  | NM_002977.3    | 99.43% |
| Familial Hemiplegic Migraine   | ATP1A2   | DOMINANT  | NM_000702.3    | 98.69% |
| Familial Hemiplegic Migraine   | SCN1A    | DOMINANT  | NM_001165963.1 | 99.76% |
| Familial Hemophagocytic Lymphohistiocytosis                              | PRF1     | RECESSIVE | NM_001083116.1 | 98.25% |
| Familial Hemophagocytic Lymphohistiocytosis                              | STX11    | RECESSIVE | NM_003764.3    | 97.28% |
| Familial Hemophagocytic Lymphohistiocytosis                              | STXBP2   | RECESSIVE | NM_006949.2    | 97.56% |
| Familial Hemophagocytic Lymphohistiocytosis                              | UNC13D   | RECESSIVE | NM_199242.2    | 97.37% |
| Familial High Density Lipoprotein Deficiency                             | ABCA1    | DOMINANT  | NM_005502.3    | 99.11% |
| Familial High Density Lipoprotein Deficiency                             | APOA1    | DOMINANT  | NM_000039.1    | 99.23% |
| Familial Horizontal Gaze Palsy with Progressive Scoliosis                | ROBO3    | RECESSIVE | NM_022370.3    | 98.85% |
| Familial Hyperaldosteronism  | KCNJ5    | DOMINANT  | NM_000890.3    | 95.90% |
| Familial Hypercholesterolemia  | APOB     | DOMINANT  | NM_000384.2    | 99.52% |
| Familial Hypercholesterolemia  | LDLR     | DOMINANT  | NM_000527.4    | 98.90% |
| Familial Hypercholesterolemia  | LDLRAP1  | DOMINANT  | NM_015627.2    | 96.72% |
| Familial Hypercholesterolemia  | PCSK9    | DOMINANT  | NM_174936.3    | 97.07% |
| Familial Hypertrophic Cardiomyopathy with Wolff-Parkinson-White Syndrome | PRKAG2   | DOMINANT  | NM_016203.3    | 97.03% |

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| Familial Hypertrophic Cardiomyopathy with Wolff-Parkinson-White Syndrome | TNNI3    | DOMINANT  | NM_000363.4    | 98.74% |
| Familial Hypocalciuric Hypercalcemia                                     | CASR     | DOMINANT  | NM_000388.3    | 99.26% |
| Familial Idiopathic Basal Ganglia Calcification                          | SLC20A2  | DOMINANT  | NM_006749.4    | 98.70% |
| Familial Infantile Myoclonic Epilepsy                                    | TBC1D24  | RECESSIVE | NM_020705.2    | 96.57% |
| Familial Intrahepatic Cholestasis  | ABCB11   | RECESSIVE | NM_003742.2    | 99.85% |
| Familial Intrahepatic Cholestasis  | ABCB4    | RECESSIVE | NM_000443.3    | 99.79% |
| Familial Intrahepatic Cholestasis  | ATP8B1   | RECESSIVE | NM_005603.4    | 99.49% |
| Familial Isolated Hypoparathyroidism                                     | CASR     | DOMINANT  | NM_000388.3    | 99.26% |
| Familial Isolated Hypoparathyroidism                                     | GCM2     | DOMINANT  | NM_004752.3    | 99.64% |
| Familial Isolated Hypoparathyroidism                                     | PTH      | DOMINANT  | NM_000315.2    | 99.99% |
| Familial Isolated Pituitary Adenomas                                     | AIP      | DOMINANT  | NM_003977.2    | 97.89% |
| Familial Juvenile Hyperuricemic Nephropathy                              | REN      | DOMINANT  | NM_000537.3    | 99.84% |
| Familial Lipoprotein Lipase Deficiency                                   | LPL      | RECESSIVE | NM_000237.2    | 99.94% |
| Familial Mediterranean Fever   | MEFV     | RECESSIVE | NM_000243.2    | 94.09% |
| Familial Paroxysmal Nonkinesigenic Dyskinesia                            | PNKD     | DOMINANT  | NM_015488.4    | 98.25% |
| Familial Partial Lipodystrophy   | LMNA     | DOMINANT  | NM_005572.3    | 96.33% |
| Familial Partial Lipodystrophy   | PPARG    | DOMINANT  | NM_015869.4    | 99.99% |
| Familial Periodic Fever  | TNFRSF1A | DOMINANT  | NM_001065.3    | 98.92% |
| Familial Platelet Disorder with Propensity to Acute Myelogenous Leukemia | RUNX1    | DOMINANT  | NM_001754.4    | 97.08% |
| Familial Pulmonary Fibrosis  | SFTPC    | DOMINANT  | NM_003018.3    | 98.49% |
| Familial Restrictive Cardiomyopathy                                      | TNNI3    | DOMINANT  | NM_000363.4    | 98.74% |
| Familial Restrictive Cardiomyopathy                                      | TNNT2    | DOMINANT  | NM_001001430.1 | 99.40% |
| Familial Spinal Neurofibromatosis  | NF1      | DOMINANT  | NM_000267.3    | 98.11% |
| Familial Temporal Lobe Epilepsy  | CPA6     | DOMINANT  | NM_020361.4    | 99.98% |
| Familial Thrombotic Thrombocytopenia Purpura                             | ADAMTS13 | RECESSIVE | NM_139025.3    | 96.40% |
| Familial Transthyretin Amyloidosis                                       | TTR      | DOMINANT  | NM_000371.3    | 98.86% |
| Familial Visceral Amyloidosis  | APOA1    | DOMINANT  | NM_000039.1    | 99.23% |

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|---|---------|-----------|----------------|--------|
| Familial Visceral Amyloidosis                       | FGA     | DOMINANT  | NM_021871.2    | 99.96% |
| Familial Visceral Amyloidosis                       | LYZ     | DOMINANT  | NM_000239.2    | 98.33% |
| Fanconi Anemia                                      | BRCA2   | RECESSIVE | NM_000059.3    | 99.97% |
| Fanconi Anemia                                      | BRIP1   | RECESSIVE | NM_032043.2    | 98.05% |
| Fanconi Anemia                                      | FANCA   | RECESSIVE | NM_000135.2    | 99.09% |
| Fanconi Anemia                                      | FANCC   | RECESSIVE | NM_000136.2    | 99.79% |
| Fanconi Anemia                                      | FANCD2  | RECESSIVE | NM_033084.3    | 98.39% |
| Fanconi Anemia                                      | FANCE   | RECESSIVE | NM_021922.2    | 98.41% |
| Fanconi Anemia                                      | FANCF   | RECESSIVE | NM_022725.3    | 99.42% |
| Fanconi Anemia                                      | FANCG   | RECESSIVE | NM_004629.1    | 98.99% |
| Fanconi Anemia                                      | FANCI   | RECESSIVE | NM_001113378.1 | 99.80% |
| Fanconi Anemia                                      | FANCL   | RECESSIVE | NM_001114636.1 | 99.95% |
| Fanconi Anemia                                      | FANCM   | RECESSIVE | NM_020937.2    | 99.02% |
| Fanconi Anemia                                      | PALB2   | RECESSIVE | NM_024675.3    | 99.95% |
| Fanconi Anemia                                      | RAD51C  | RECESSIVE | NM_058216.1    | 98.27% |
| Fanconi Anemia                                      | SLX4    | RECESSIVE | NM_032444.2    | 99.31% |
| Fanconi Anemia, X-Linked                            | FANCB   | X_LINKED  | NM_001018113.1 | 94.19% |
| Fanconi-Bickel Syndrome                             | SLC2A2  | RECESSIVE | NM_000340.1    | 99.96% |
| Farber Lipogranulomatosis                           | ASAH1   | RECESSIVE | NM_177924.3    | 99.36% |
| Fatal Infantile Cardioencephalomyopathy             | SCO2    | RECESSIVE | NM_005138.2    | 97.71% |
| Fatal Infantile Cardioencephalomyopathy             | SCO2    | RECESSIVE | NM_005138.2    | 97.71% |
| Fatal Infantile Lactic Acidosis                     | SUCLG1  | RECESSIVE | NM_003849.3    | 98.92% |
| Fatty Acid Hydroxylase-Associated Neurodegeneration | FA2H    | RECESSIVE | NM_024306.4    | 97.26% |
| Fechtner Syndrome                                   | MYH9    | DOMINANT  | NM_002473.4    | 99.28% |
| Fetal Akinesia Deformation Sequence                 | RAPSN   | RECESSIVE | NM_005055.4    | 98.74% |
| Fibrochondrogenesis                                 | COL11A1 | RECESSIVE | NM_001854.3    | 98.66% |
| Fibrochondrogenesis                                 | COL11A2 | RECESSIVE | NM_080680.2    | 99.38% |
| Fibrodysplasia Ossificans Progressiva               | ACVR1   | DOMINANT  | NM_001105.4    | 99.91% |
| Fibular Hypoplasia and Complex Brachydactyly        | GDF5    | RECESSIVE | NM_000557.2    | 98.65% |

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| FLNB-Related Spectrum Disorders                   | FLNB     | DOMINANT  | NM_001457.3    | 98.53% |
| Floating-Harbor Syndrome                          | SRCAP    | DOMINANT  | NM_006662.2    | 99.46% |
| Focal Cortical Dysplasia of Taylor                | TSC1     | DOMINANT  | NM_000368.4    | 99.02% |
| Focal Segmental Glomerulosclerosis                | CD2AP    | RECESSIVE | NM_012120.2    | 98.03% |
| Focal Segmental Glomerulosclerosis                | TRPC6    | RECESSIVE | NM_004621.5    | 98.55% |
| Formiminotransferase Deficiency                   | FTCD     | RECESSIVE | NM_006657.2    | 95.57% |
| Foveal Hypoplasia and Presenile Cataract Syndrome | PAX6     | DOMINANT  | NM_000280.4    | 99.26% |
| Frank-ter Haar Syndrome                           | SH3PXD2B | RECESSIVE | NM_001017995.2 | 96.75% |
| Fraser Syndrome                                   | FRAS1    | RECESSIVE | NM_025074.6    | 99.89% |
| Fraser Syndrome                                   | FREM2    | RECESSIVE | NM_207361.4    | 99.77% |
| Fraser Syndrome                                   | GRIP1    | RECESSIVE | NM_021150.3    | 99.96% |
| Free Sialic Acid Storage Disorders                | SLC17A5  | RECESSIVE | NM_012434.4    | 98.00% |
| Freeman-Sheldon Syndrome                          | MYH3     | RECESSIVE | NM_002470.3    | 99.45% |
| Frontotemporal Dementia                           | CHMP2B   | DOMINANT  | NM_014043.3    | 99.77% |
| Frontotemporal Dementia                           | GRN      | DOMINANT  | NM_002087.2    | 97.73% |
| Frontotemporal Dementia                           | TARDBP   | DOMINANT  | NM_007375.3    | 98.20% |
| Fructose 1,6 Bisphosphatase Deficiency            | FBP1     | DOMINANT  | NM_000507.3    | 96.36% |
| Fucosidosis                                       | FUCA1    | RECESSIVE | NM_000147.4    | 99.22% |
| Fukuyama Congenital Muscular Dystrophy            | FKTN     | DOMINANT  | NM_001079802.1 | 99.86% |
| Fumarate Hydratase Deficiency                     | FH       | RECESSIVE | NM_000143.3    | 99.47% |
| Fundus Albipunctatus                              | PRPH2    | DOMINANT  | NM_000322.4    | 99.36% |
| Fundus Albipunctatus                              | RDH5     | DOMINANT  | NM_002905.3    | 99.28% |
| Fundus Albipunctatus                              | RLBP1    | DOMINANT  | NM_000326.4    | 97.56% |
| Furlong Syndrome                                  | TGFBR1   | DOMINANT  | NM_004612.2    | 97.77% |
| GABA-Transaminase Deficiency                      | ABAT     | RECESSIVE | NM_020686.5    | 99.67% |
| Galactokinase Deficiency                          | GALK1    | RECESSIVE | NM_000154.1    | 97.56% |
| Galactosemia                                      | GALT     | RECESSIVE | NM_000155.2    | 99.38% |
| Galactosialidosis                                 | CTSA     | RECESSIVE | NM_000308.2    | 99.07% |
| Gamma-Sarcoglycanopathy                           | SGCG     | RECESSIVE | NM_000231.2    | 99.52% |

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| Gastrointestinal Stromal Tumor                  | KIT      | DOMINANT  | NM_000222.2    | 99.98% |
| Gastrointestinal Stromal Tumor                  | PDGFRA   | DOMINANT  | NM_006206.4    | 99.88% |
| Geleophysic Dysplasia                           | ADAMTSL2 | DOMINANT  | NM_014694.3    | 98.32% |
| Geleophysic Dysplasia                           | FBN1     | DOMINANT  | NM_000138.4    | 99.59% |
| Generalized Arterial Calcification of Infancy   | ENPP1    | RECESSIVE | NM_006208.2    | 96.75% |
| Generalized Epilepsy and Paroxysmal Dyskinesia  | KCNMA1   | DOMINANT  | NM_002247.3    | 97.50% |
| Generalized Epilepsy with Febrile Seizures Plus | GABRG2   | DOMINANT  | NM_000816.3    | 99.93% |
| Generalized Epilepsy with Febrile Seizures Plus | SCN1B    | DOMINANT  | NM_001037.4    | 90.69% |
| Generalized Epilepsy with Febrile Seizures Plus | SCN9A    | DOMINANT  | NM_002977.3    | 99.43% |
| Generalized Pustular Psoriasis                  | IL36RN   | RECESSIVE | NM_012275.2    | 99.76% |
| Genetic Prion Diseases                          | PRNP     | DOMINANT  | NM_000311.3    | 95.77% |
| Geroderma Osteodysplasticum                     | GORAB    | RECESSIVE | NM_152281.2    | 99.74% |
| Giant Axonal Neuropathy                         | GAN      | RECESSIVE | NM_022041.3    | 99.61% |
| Gilbert Syndrome                                | UGT1A1   | RECESSIVE | NM_000463.2    | 99.91% |
| Gingival Fibromatosis                           | SOS1     | DOMINANT  | NM_005633.3    | 99.48% |
| Gitelman Syndrome                               | SLC12A3  | RECESSIVE | NM_000339.2    | 99.14% |
| Glaucoma  | MYOC     | DOMINANT  | NM_000261.1    | 99.85% |
| Global Cerebral Hypomyelination                 | SLC25A12 | RECESSIVE | NM_003705.4    | 99.89% |
| Glomuvenous Malformation                        | GLMN     | DOMINANT  | NM_053274.2    | 99.21% |
| Glucocorticoid Deficiency                       | MC2R     | RECESSIVE | NM_000529.2    | 97.40% |
| Glucocorticoid Deficiency                       | MRAP     | RECESSIVE | NM_178817.3    | 99.61% |
| Glucocorticoid Resistance                       | NR3C1    | DOMINANT  | NM_001018077.1 | 99.34% |
| Glucocorticoid-Remediable Aldosteronism         | CYP11B1  | DOMINANT  | NM_000497.3    | 96.74% |
| Glucocorticoid-Remediable Aldosteronism         | CYP11B2  | DOMINANT  | NM_000498.3    | 95.83% |
| Glucose Transporter Type 1 Deficiency Syndrome  | SLC2A1   | DOMINANT  | NM_006516.2    | 98.39% |
| Glucose-6-Phosphate Dehydrogenase Deficiency    | G6PD     | X_LINKED  | NM_001042351.1 | 78.21% |
| Glucose-Galactose Malabsorption                 | SLC5A1   | RECESSIVE | NM_000343.3    | 99.73% |
| Glutaricacidemia                                | GCDH     | RECESSIVE | NM_000159.2    | 99.35% |
| Glutathione Synthetase Deficiency               | GSS      | RECESSIVE | NM_000178.2    | 99.94% |

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| Glycine Encephalopathy  | AMT      | RECESSIVE | NM_000481.3    | 99.49% |
| Glycine Encephalopathy  | GLDC     | RECESSIVE | NM_000170.2    | 97.74% |
| Glycogen Storage Disease of Heart, Lethal Congenital                    | PRKAG2   | DOMINANT  | NM_016203.3    | 97.03% |
| Glycogen Storage Disease Type 0, Liver                                  | GYS2     | RECESSIVE | NM_021957.3    | 99.92% |
| Glycogen Storage Disease Type 0, Muscle                                 | GYS1     | RECESSIVE | NM_002103.4    | 98.85% |
| Glycogen Storage Disease Type I   | G6PC     | RECESSIVE | NM_000151.3    | 98.32% |
| Glycogen Storage Disease Type I   | SLC37A4  | RECESSIVE | NM_001164277.1 | 97.76% |
| Glycogen Storage Disease Type III                                       | AGL      | RECESSIVE | NM_000642.2    | 99.67% |
| Glycogen Storage Disease Type IV  | GBE1     | RECESSIVE | NM_000158.3    | 98.20% |
| Glycogen Storage Disease Type V   | PYGM     | RECESSIVE | NM_005609.2    | 99.07% |
| Glycogen Storage Disease Type VI  | PYGL     | RECESSIVE | NM_002863.4    | 99.30% |
| Glycogen Storage Disease Type VII                                       | PFKM     | RECESSIVE | NM_000289.5    | 99.93% |
| Glycogen Storage Disease Type X   | PGAM2    | RECESSIVE | NM_000290.3    | 97.42% |
| Glycogen Storage Disease Type XIII                                      | ENO3     | RECESSIVE | NM_053013.3    | 97.42% |
| Glycogen Storage Disease Type XIV                                       | PGM1     | RECESSIVE | NM_002633.2    | 98.32% |
| Glycogen Storage Disease XI   | LDHA     | RECESSIVE | NM_005566.3    | 98.98% |
| Glycogen Storage Disease, Type II                                       | GAA      | RECESSIVE | NM_000152.3    | 97.39% |
| Glycoprotein 1a Deficiency  | ITGA2    | DOMINANT  | NM_002203.3    | 99.39% |
| GM1 Gangliosidosis  | GLB1     | RECESSIVE | NM_000404.2    | 99.90% |
| GM2 Activator Deficiency  | GM2A     | RECESSIVE | NM_000405.4    | 99.28% |
| Goldberg-Shprintzen Megacolon Syndrome                                  | KIAA1279 | RECESSIVE | NM_015634.3    | 99.83% |
| Gracile Syndrome  | BCS1L    | RECESSIVE | NM_004328.4    | 97.20% |
| Gray Platelet Syndrome  | NBEAL2   | RECESSIVE | NM_015175.2    | 96.43% |
| Greenberg Dysplasia   | LBR      | RECESSIVE | NM_002296.3    | 98.52% |
| Greig Cephalopolysyndactyly Syndrome                                    | GLI3     | DOMINANT  | NM_000168.5    | 98.64% |
| Griscelli Syndrome  | RAB27A   | DOMINANT  | NM_004580.4    | 97.45% |
| Growth Retardation, Developmental Delay, Coarse Facies, and Early Death | FTO      | RECESSIVE | NM_001080432.2 | 99.53% |
| GTP Cyclohydrolase 1 Deficiency (GTPCH)                                 | GCH1     | RECESSIVE | NM_000161.2    | 98.40% |



|  |          |           |             |        |
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| Guanidinoacetate Methyltransferase Deficiency  | GAMT     | RECESSIVE | NM_000156.4 | 97.97% |
| Haim-Munk Syndrome   | CTSC     | RECESSIVE | NM_001814.4 | 99.55% |
| Hawkinsinuria  | HPD      | DOMINANT  | NM_002150.2 | 98.58% |
| Hemoglobin E   | HBB      | RECESSIVE | NM_000518.4 | 99.96% |
| Hemolytic Anemia   | SLC4A1   | RECESSIVE | NM_000342.3 | 97.69% |
| Hennekam Lymphangiectasia-Lymphedema Syndrome  | CCBE1    | RECESSIVE | NM_133459.3 | 97.38% |
| Hepatic Failure, Early-Onset, and Neurologic Disorder due to Cytochrome C Oxidase Deficiency | SCO1     | RECESSIVE | NM_004589.2 | 97.37% |
| Hepatic Lipase Deficiency  | LIPC     | RECESSIVE | NM_000236.2 | 99.06% |
| Hepatic Veno-occlusive Disease with Immunodeficiency   | SP110    | RECESSIVE | NM_004509.3 | 99.14% |
| Hepatocerebral Mitochondrial DNA Depletion Syndrome  | MPV17    | RECESSIVE | NM_002437.4 | 97.52% |
| Hereditary Angioedema  | F12      | DOMINANT  | NM_000505.3 | 98.74% |
| Hereditary Angioedema  | SERPING1 | DOMINANT  | NM_000062.2 | 99.34% |
| Hereditary Angiopathy with Nephropathy, Aneurysms, and Muscle Cramps                         | COL4A1   | DOMINANT  | NM_001845.4 | 99.41% |
| Hereditary Breast and Ovarian Cancer   | BRCA1    | DOMINANT  | NM_007294.3 | 99.41% |
| Hereditary Breast and Ovarian Cancer   | BRCA2    | DOMINANT  | NM_000059.3 | 99.97% |
| Hereditary Coproporphyrria   | CPOX     | DOMINANT  | NM_000097.5 | 96.61% |
| Hereditary Diffuse Gastric Cancer  | CDH1     | DOMINANT  | NM_004360.3 | 98.58% |
| Hereditary Diffuse Leukoencephalopathy with Spheroids  | CSF1R    | DOMINANT  | NM_005211.3 | 98.27% |
| Hereditary Essential Tremor  | DRD3     | DOMINANT  | NM_000796.3 | 99.52% |
| Hereditary Folate Malabsorption  | SLC46A1  | RECESSIVE | NM_080669.4 | 99.61% |
| Hereditary Fructose Intolerance  | ALDOB    | RECESSIVE | NM_000035.3 | 99.88% |
| Hereditary Hemochromatosis   | HFE      | RECESSIVE | NM_000410.3 | 99.97% |
| Hereditary Hemochromatosis   | SLC40A1  | RECESSIVE | NM_014585.5 | 99.81% |
| Hereditary Hemochromatosis   | TFR2     | RECESSIVE | NM_003227.3 | 96.67% |
| Hereditary Hemorrhagic Telangiectasia  | ACVRL1   | DOMINANT  | NM_000020.2 | 97.64% |
| Hereditary Hemorrhagic Telangiectasia  | ENG      | DOMINANT  | NM_000118.2 | 97.28% |
| Hereditary Hemorrhagic Telangiectasia  | SMAD4    | DOMINANT  | NM_005359.5 | 98.23% |

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| Hereditary Keratitis   | PAX6     | DOMINANT  | NM_000280.4    | 99.26% |
| Hereditary Leiomyomatosis and Renal Cell Cancer                              | FH       | DOMINANT  | NM_000143.3    | 99.47% |
| Hereditary Motor and Sensory Neuropathy                                      | MFN2     | RECESSIVE | NM_014874.3    | 98.90% |
| Hereditary Motor and Sensory Neuropathy with Agenesis of the Corpus Callosum | SLC12A6  | RECESSIVE | NM_133647.1    | 99.28% |
| Hereditary Multiple Osteochondromatosis                                      | EXT1     | DOMINANT  | NM_000127.2    | 97.33% |
| Hereditary Multiple Osteochondromatosis                                      | EXT2     | DOMINANT  | NM_207122.1    | 99.61% |
| Hereditary Myopathy with Early Respiratory Failure                           | TTN      | DOMINANT  | NM_133378.4    | 99.55% |
| Hereditary Neuropathy with Liability to Pressure Palsies                     | PMP22    | DOMINANT  | NM_000304.2    | 99.96% |
| Hereditary Pancreatitis  | CFTR     | DOMINANT  | NM_000492.3    | 99.85% |
| Hereditary Pancreatitis  | CTRC     | DOMINANT  | NM_007272.2    | 99.04% |
| Hereditary Pancreatitis  | SPINK1   | DOMINANT  | NM_003122.3    | 99.99% |
| Hereditary Paraganglioma-Pheochromocytoma Syndrome                           | MAX      | DOMINANT  | NM_002382.3    | 96.97% |
| Hereditary Paraganglioma-Pheochromocytoma Syndrome                           | SDHAF2   | DOMINANT  | NM_017841.2    | 99.92% |
| Hereditary Paraganglioma-Pheochromocytoma Syndrome                           | SDHB     | DOMINANT  | NM_003000.2    | 99.74% |
| Hereditary Paraganglioma-Pheochromocytoma Syndrome                           | SDHC     | DOMINANT  | NM_003001.3    | 91.32% |
| Hereditary Paraganglioma-Pheochromocytoma Syndrome                           | SDHD     | DOMINANT  | NM_003002.2    | 89.67% |
| Hereditary Persistence of Fetal Hemoglobin                                   | HBB      | RECESSIVE | NM_000518.4    | 99.96% |
| Hereditary Persistence of Fetal Hemoglobin                                   | HBD      | RECESSIVE | NM_000519.3    | 99.99% |
| Hereditary Pyropoikilocytosis  | SPTA1    | RECESSIVE | NM_003126.2    | 99.65% |
| Hereditary Sensory and Autonomic Neuropathy, Type IC                         | SPTLC2   | DOMINANT  | NM_004863.3    | 99.08% |
| Hereditary Sensory and Autonomic Neuropathy, Type II                         | FAM134B  | RECESSIVE | NM_001034850.2 | 98.17% |
| Hereditary Sensory and Autonomic Neuropathy, Type II                         | KIF1A    | RECESSIVE | NM_004321.6    | 98.68% |
| Hereditary Sensory and Autonomic Neuropathy, Type II                         | SPTLC1   | RECESSIVE | NM_006415.2    | 97.50% |
| Hereditary Sensory and Autonomic Neuropathy, Type II                         | WNK1     | RECESSIVE | NM_018979.3    | 98.81% |
| Hereditary Sensory and Autonomic Neuropathy, Type IV                         | NTRK1    | RECESSIVE | NM_001012331.1 | 96.95% |
| Hereditary Sensory and Autonomic Neuropathy, Type V                          | NGF      | RECESSIVE | NM_002506.2    | 97.65% |
| Hereditary Sensory and Autonomic Neuropathy, Type VI                         | DST      | RECESSIVE | NM_001723.5    | 99.98% |
| Hereditary Sideroblastic Anemia  | SLC25A38 | RECESSIVE | NM_017875.2    | 99.87% |

|   |        |           |                |        |
|---|--------|-----------|----------------|--------|
| Hereditary Sideroblastic Anemia with Myopathy and Lactic Acidosis | YARS2  | RECESSIVE | NM_001040436.2 | 98.74% |
| Hereditary Sideroblastic Anemia with Spinocerebellar Ataxia       | ABCB7  | X_LINKED  | NM_004299.3    | 96.52% |
| Heritable Pulmonary Arterial Hypertension                         | BMPR2  | DOMINANT  | NM_001204.6    | 99.21% |
| Heritable Pulmonary Arterial Hypertension                         | SMAD9  | DOMINANT  | NM_001127217.2 | 96.46% |
| Hermansky-Pudlak Syndrome   | AP3B1  | RECESSIVE | NM_003664.3    | 99.53% |
| Hermansky-Pudlak Syndrome   | DTNBP1 | RECESSIVE | NM_032122.4    | 97.80% |
| Hermansky-Pudlak Syndrome   | HPS1   | RECESSIVE | NM_000195.3    | 98.66% |
| Hermansky-Pudlak Syndrome   | HPS3   | RECESSIVE | NM_032383.3    | 97.75% |
| Hermansky-Pudlak Syndrome   | HPS4   | RECESSIVE | NM_022081.4    | 98.69% |
| Hermansky-Pudlak Syndrome   | HPS5   | RECESSIVE | NM_181507.1    | 99.96% |
| Hermansky-Pudlak Syndrome   | HPS6   | RECESSIVE | NM_024747.5    | 98.02% |
| Heterotaxy Syndrome   | ACVR2B | DOMINANT  | NM_001106.3    | 98.59% |
| Heterotaxy Syndrome   | NODAL  | DOMINANT  | NM_018055.4    | 99.55% |
| Hexosaminidase A Deficiency                                       | HEXA   | RECESSIVE | NM_000520.4    | 99.77% |
| Hidrotic Ectodermal Dysplasia                                     | GJB6   | DOMINANT  | NM_006783.4    | 99.83% |
| Hirschsprung Disease, Dominant                                    | EDN3   | DOMINANT  | NM_207034.1    | 98.17% |
| Hirschsprung Disease, Dominant                                    | RET    | DOMINANT  | NM_020975.4    | 98.25% |
| Hirschsprung Disease, Recessive                                   | EDNRB  | RECESSIVE | NM_000115.3    | 99.44% |
| Histidinemia  | HAL    | RECESSIVE | NM_002108.3    | 99.73% |
| Holocarboxylase Synthetase Deficiency                             | HLCS   | RECESSIVE | NM_000411.6    | 99.81% |
| Holoprosencephaly   | CDON   | DOMINANT  | NM_016952.4    | 99.20% |
| Holoprosencephaly   | FOXH1  | DOMINANT  | NM_003923.2    | 98.79% |
| Holoprosencephaly   | NODAL  | DOMINANT  | NM_018055.4    | 99.55% |
| Holoprosencephaly   | PTCH1  | DOMINANT  | NM_000264.3    | 97.68% |
| Holoprosencephaly   | TGIF1  | DOMINANT  | NM_173208.1    | 96.95% |
| Holt-Oram Syndrome  | TBX5   | DOMINANT  | NM_000192.3    | 98.45% |
| Homocystinuria  | CBS    | RECESSIVE | NM_000071.2    | 95.41% |

|   |          |           |             |        |
|---|----------|-----------|-------------|--------|
| Humero-spinal Dysostosis                                    | CHST3    | RECESSIVE | NM_004273.4 | 98.22% |
| Hutchinson-Gilford Progeria Syndrome                        | LMNA     | DOMINANT  | NM_005572.3 | 96.33% |
| Hydroletharus Syndrome                                      | HYLS1    | RECESSIVE | NM_145014.2 | 99.17% |
| Hydroxymethylbilane Synthase Deficiency                     | HMBS     | DOMINANT  | NM_000190.3 | 99.95% |
| Hyper IgD Syndrome  | MVK      | RECESSIVE | NM_000431.2 | 99.43% |
| Hyper IgE Syndrome  | DOCK8    | RECESSIVE | NM_203447.3 | 99.23% |
| Hyper IgE Syndrome  | STAT3    | DOMINANT  | NM_139276.2 | 97.94% |
| Hyperalphalipoproteinemia                                   | CETP     | DOMINANT  | NM_000078.2 | 99.77% |
| Hypercholanemia   | BAAT     | RECESSIVE | NM_001701.3 | 99.42% |
| Hyperekplexia   | GLRA1    | DOMINANT  | NM_000171.3 | 99.53% |
| Hyperekplexia   | GLRB     | DOMINANT  | NM_000824.4 | 98.71% |
| Hyperekplexia   | SLC6A5   | DOMINANT  | NM_004211.3 | 99.69% |
| Hypereosinophilic Syndrome                                  | PDGFRA   | DOMINANT  | NM_006206.4 | 99.88% |
| Hyperferritinemia Cataract Syndrome                         | FTL      | DOMINANT  | NM_000146.3 | 98.97% |
| Hyperglycinuria   | SLC6A20  | DOMINANT  | NM_020208.3 | 98.69% |
| Hypergonadotropic Hypogonadism                              | LHCGR    | RECESSIVE | NM_000233.3 | 98.17% |
| Hyperinsulinism, Dominant                                   | GCK      | DOMINANT  | NM_000162.3 | 96.32% |
| Hyperinsulinism, Dominant/Recessive                         | ABCC8    | DOMINANT  | NM_000352.3 | 98.00% |
| Hyperinsulinism, Dominant/Recessive                         | GLUD1    | DOMINANT  | NM_005271.3 | 95.10% |
| Hyperinsulinism, Dominant/Recessive                         | HADH     | DOMINANT  | NM_005327.4 | 99.54% |
| Hyperinsulinism, Dominant/Recessive                         | HNF4A    | DOMINANT  | NM_000457.4 | 98.07% |
| Hyperinsulinism, Dominant/Recessive                         | KCNJ11   | DOMINANT  | NM_000525.3 | 91.82% |
| Hyperinsulinism, Dominant/Recessive                         | SLC16A1  | DOMINANT  | NM_003051.3 | 99.42% |
| Hyperkalemic Periodic Paralysis                             | SCN4A    | DOMINANT  | NM_000334.4 | 97.03% |
| Hypermethioninemia  | ADK      | RECESSIVE | NM_001123.3 | 98.55% |
| Hypermethioninemia  | AHCY     | RECESSIVE | NM_000687.2 | 99.72% |
| Hyperornithinemia-Hyperammonemia-Homocitrullinuria Syndrome | SLC25A15 | RECESSIVE | NM_014252.3 | 96.55% |
| Hyperparathyroidism   | MEN1     | DOMINANT  | NM_130799.2 | 96.55% |

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|--|---------|-----------|----------------|--------|
| Hyperparathyroidism-Jaw Tumor Syndrome   | CDC73   | DOMINANT  | NM_024529.4    | 99.19% |
| Hyperphosphatasia with Mental Retardation Syndrome   | PIGV    | RECESSIVE | NM_017837.3    | 99.12% |
| Hyperphosphatemic Familial Tumoral Calcinosis  | FGF23   | RECESSIVE | NM_020638.2    | 97.85% |
| Hyperphosphatemic Familial Tumoral Calcinosis  | GALNT3  | RECESSIVE | NM_004482.3    | 99.18% |
| Hyperphosphatemic Familial Tumoral Calcinosis  | KL      | RECESSIVE | NM_004795.3    | 98.02% |
| Hyperpigmentation, Cutaneous, with Hypertrichosis, Hepatosplenomegaly, Heart Anomalies, Hearing Loss, and Hypogonadism | SLC29A3 | RECESSIVE | NM_018344.5    | 99.41% |
| Hyperprolinemia  | ALDH4A1 | RECESSIVE | NM_003748.3    | 98.47% |
| Hypertrichotic Osteochondrodysplasia   | ABCC9   | DOMINANT  | NM_005691.2    | 99.66% |
| Hypertrophic Cardiomyopathy  | GLA     | X_LINKED  | NM_000169.2    | 96.24% |
| Hypertrophic Cardiomyopathy  | ACTC1   | DOMINANT  | NM_005159.4    | 98.49% |
| Hypertrophic Cardiomyopathy  | ACTN2   | DOMINANT  | NM_001103.2    | 97.96% |
| Hypertrophic Cardiomyopathy  | CAV3    | DOMINANT  | NM_033337.2    | 99.33% |
| Hypertrophic Cardiomyopathy  | CSRP3   | DOMINANT  | NM_003476.4    | 97.72% |
| Hypertrophic Cardiomyopathy  | LAMP2   | DOMINANT  | NM_002294.2    | 94.75% |
| Hypertrophic Cardiomyopathy  | MYBPC3  | DOMINANT  | NM_000256.3    | 98.60% |
| Hypertrophic Cardiomyopathy  | MYH6    | DOMINANT  | NM_002471.3    | 98.59% |
| Hypertrophic Cardiomyopathy  | MYH7    | DOMINANT  | NM_000257.2    | 99.12% |
| Hypertrophic Cardiomyopathy  | MYL2    | DOMINANT  | NM_000432.3    | 99.71% |
| Hypertrophic Cardiomyopathy  | MYL3    | DOMINANT  | NM_000258.2    | 99.78% |
| Hypertrophic Cardiomyopathy  | MYLK2   | DOMINANT  | NM_033118.3    | 99.29% |
| Hypertrophic Cardiomyopathy  | MYOZ2   | DOMINANT  | NM_016599.3    | 99.23% |
| Hypertrophic Cardiomyopathy  | NEXN    | DOMINANT  | NM_144573.3    | 99.09% |
| Hypertrophic Cardiomyopathy  | PLN     | DOMINANT  | NM_002667.3    | 99.99% |
| Hypertrophic Cardiomyopathy  | TCAP    | DOMINANT  | NM_003673.3    | 98.58% |
| Hypertrophic Cardiomyopathy  | TNNC1   | DOMINANT  | NM_003280.2    | 98.67% |
| Hypertrophic Cardiomyopathy  | TNNI3   | DOMINANT  | NM_000363.4    | 98.74% |
| Hypertrophic Cardiomyopathy  | TNNT2   | DOMINANT  | NM_001001430.1 | 99.40% |

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|---|---------|-----------|----------------|--------|
| Hypertrophic Cardiomyopathy   | TPM1    | DOMINANT  | NM_001018005.1 | 97.66% |
| Hypertrophic Cardiomyopathy   | TTN     | DOMINANT  | NM_133378.4    | 99.55% |
| Hyperuricemia, Pulmonary Hypertension, Renal Failure, and Alkalosis | SARS2   | RECESSIVE | NM_017827.3    | 99.04% |
| Hypocalcemia  | CASR    | DOMINANT  | NM_000388.3    | 99.26% |
| Hypochromic Microcytic Anemia with Iron Overload                    | SLC11A2 | RECESSIVE | NM_000617.2    | 99.89% |
| Hypohidrotic Ectodermal Dysplasia, Dominant                         | EDAR    | DOMINANT  | NM_022336.3    | 99.85% |
| Hypohidrotic Ectodermal Dysplasia, Recessive                        | EDARADD | RECESSIVE | NM_145861.2    | 99.24% |
| Hypokalemic Periodic Paralysis                                      | CACNA1S | DOMINANT  | NM_000069.2    | 99.06% |
| Hypokalemic Periodic Paralysis                                      | KCNE3   | DOMINANT  | NM_005472.4    | 94.16% |
| Hypokalemic Periodic Paralysis                                      | SCN4A   | DOMINANT  | NM_000334.4    | 97.03% |
| Hypomagnesemia with Secondary Hypocalcemia                          | TRPM6   | RECESSIVE | NM_017662.4    | 97.71% |
| Hypomyelination and Congenital Cataract                             | FAM126A | RECESSIVE | NM_032581.3    | 99.70% |
| Hypoparathyroidism, Sensorineural Deafness, and Renal Disease       | GATA3   | DOMINANT  | NM_001002295.1 | 96.46% |
| Hypoparathyroidism-Retardation-Dysmorphism Syndrome                 | TBCE    | RECESSIVE | NM_003193.3    | 99.79% |
| Hypophosphatasia  | ALPL    | DOMINANT  | NM_000478.4    | 97.41% |
| Hypophosphatemic Nephrolithiasis/Osteoporosis                       | SLC34A1 | RECESSIVE | NM_003052.4    | 97.04% |
| Hypophosphatemic Rickets, Dominant                                  | FGF23   | DOMINANT  | NM_020638.2    | 97.85% |
| Hypophosphatemic Rickets, Recessive                                 | DMP1    | RECESSIVE | NM_004407.3    | 99.72% |
| Hypophosphatemic Rickets, Recessive                                 | ENPP1   | RECESSIVE | NM_006208.2    | 96.75% |
| Hypoplastic Left Heart Syndrome                                     | GJA1    | DOMINANT  | NM_000165.3    | 95.58% |
| Ichthyosis Bullosa of Siemens                                       | KRT2    | DOMINANT  | NM_000423.2    | 98.63% |
| Ichthyosis, Hystrix-like, with Deafness                             | GJB2    | DOMINANT  | NM_004004.5    | 97.20% |
| Immunodeficiency due to Defect in CD3-Gamma                         | CD3G    | RECESSIVE | NM_000073.2    | 96.51% |
| Immunodeficiency with Hyper-IgM                                     | AICDA   | RECESSIVE | NM_020661.2    | 96.90% |
| Immunodeficiency with Hyper-IgM                                     | CD40    | RECESSIVE | NM_001250.4    | 98.46% |
| Immunodeficiency with Hyper-IgM                                     | UNG     | RECESSIVE | NM_080911.2    | 99.37% |
| Immunodeficiency-Centromeric Instability-Facial Anomalies           | DNMT3B  | RECESSIVE | NM_006892.3    | 95.41% |

| Syndrome   |         |           |                |        |
|--|---------|-----------|----------------|--------|
| Inclusion Body Myopathy, Dominant                | MYH2    | DOMINANT  | NM_017534.5    | 99.85% |
| Inclusion Body Myopathy, Dominant                | VCP     | DOMINANT  | NM_007126.3    | 99.01% |
| Inclusion Body Myopathy, Recessive               | GNE     | RECESSIVE | NM_005476.5    | 95.71% |
| Infantile Hypercalcemia                          | CYP24A1 | DOMINANT  | NM_000782.4    | 99.41% |
| Infantile Nystagmus                              | FRMD7   | X_LINKED  | NM_194277.2    | 97.16% |
| Infantile Spinal Muscular Atrophy, X-Linked      | UBA1    | X_LINKED  | NM_003334.3    | 89.32% |
| Inflammatory Bowel Disease                       | IL10RA  | RECESSIVE | NM_001558.3    | 99.82% |
| Inflammatory Bowel Disease                       | IL10RB  | RECESSIVE | NM_000628.4    | 97.73% |
| Inherited Erythromelalgia                        | SCN9A   | DOMINANT  | NM_002977.3    | 99.43% |
| Inherited Systemic Hyalinosis                    | ANTXR2  | RECESSIVE | NM_058172.5    | 99.56% |
| Insulin-Like Growth Factor I Deficiency          | IGF1    | RECESSIVE | NM_000618.3    | 99.11% |
| Insulin-Like Growth Factor I Deficiency          | IGF1R   | RECESSIVE | NM_000875.3    | 98.74% |
| Intellectual Disability Syndrome                 | KANSL1  | DOMINANT  | NM_001193466.1 | 99.22% |
| Interleukin 1 Receptor Antagonist Deficiency     | IL1RN   | RECESSIVE | NM_173841.2    | 99.91% |
| Interleukin 2 Receptor Alpha Chain Deficiency    | IL2RA   | RECESSIVE | NM_000417.2    | 99.74% |
| Intrinsic Factor Deficiency                      | GIF     | RECESSIVE | NM_005142.2    | 99.94% |
| IRAK4 Deficiency                                 | IRAK4   | RECESSIVE | NM_016123.3    | 98.62% |
| Iris Hypoplasia                                  | PITX2   | DOMINANT  | NM_153427.2    | 99.12% |
| Iron Overload                                    | FTH1    | DOMINANT  | NM_002032.2    | 96.46% |
| Iron-Refractory Iron Deficiency Anemia           | TMPRSS6 | RECESSIVE | NM_153609.2    | 98.15% |
| Isobutyryl-CoA Dehydrogenase Deficiency          | ACAD8   | RECESSIVE | NM_014384.2    | 99.45% |
| Isolated Congenital Digital Clubbing             | HPGD    | RECESSIVE | NM_000860.5    | 99.68% |
| Isolated Coronal Synostosis                      | FGFR2   | DOMINANT  | NM_000141.4    | 97.52% |
| Isolated Follicle-Stimulating Hormone Deficiency | FSHB    | RECESSIVE | NM_000510.2    | 99.97% |
| Isolated GnRH Deficiency                         | GNRH1   | RECESSIVE | NM_000825.3    | 99.99% |
| Isolated GnRH Deficiency                         | GNRHR   | RECESSIVE | NM_000406.2    | 99.65% |
| Isolated GnRH Deficiency                         | TACR3   | RECESSIVE | NM_001059.2    | 99.07% |
| Isolated Growth Hormone Deficiency               | GH1     | RECESSIVE | NM_000515.3    | 97.24% |

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|--|----------|-----------|----------------|--------|
| Isolated Growth Hormone Deficiency             | GHRHR    | RECESSIVE | NM_000823.3    | 99.72% |
| Isolated Hyperparathyroidism                   | CDC73    | DOMINANT  | NM_024529.4    | 99.19% |
| Isolated Microphthalmia                        | MFRP     | RECESSIVE | NM_031433.2    | 98.05% |
| Isolated Microphthalmia                        | VSX2     | RECESSIVE | NM_182894.2    | 99.45% |
| Isolated Nonsyndromic Congenital Heart Disease | JAG1     | DOMINANT  | NM_000214.2    | 99.22% |
| Isolated Persistent Hypermethioninemia         | MAT1A    | DOMINANT  | NM_000429.2    | 99.55% |
| Isovaleric Acidemia                            | IVD      | RECESSIVE | NM_002225.3    | 96.05% |
| Jackson-Weiss Syndrome                         | FGFR2    | DOMINANT  | NM_000141.4    | 97.52% |
| Jalili Syndrome                                | CNNM4    | RECESSIVE | NM_020184.3    | 95.75% |
| Jawad Syndrome                                 | RBBP8    | RECESSIVE | NM_002894.2    | 99.22% |
| Jervell and Lange-Nielsen Syndrome             | KCNE1    | RECESSIVE | NM_000219.3    | 99.96% |
| Jervell and Lange-Nielsen Syndrome             | KCNQ1    | RECESSIVE | NM_000218.2    | 92.10% |
| Joubert Syndrome                               | AHI1     | RECESSIVE | NM_017651.4    | 99.72% |
| Joubert Syndrome                               | ARL13B   | RECESSIVE | NM_182896.2    | 99.13% |
| Joubert Syndrome                               | C5orf42  | RECESSIVE | NM_023073.3    | 99.61% |
| Joubert Syndrome                               | CC2D2A   | RECESSIVE | NM_001080522.2 | 99.94% |
| Joubert Syndrome                               | CEP290   | RECESSIVE | NM_025114.3    | 99.36% |
| Joubert Syndrome                               | CEP41    | RECESSIVE | NM_018718.2    | 98.88% |
| Joubert Syndrome                               | NPHP1    | RECESSIVE | NM_000272.3    | 99.47% |
| Joubert Syndrome                               | RPGRIP1L | RECESSIVE | NM_015272.2    | 99.57% |
| Joubert Syndrome                               | TCTN1    | RECESSIVE | NM_001082538.2 | 98.23% |
| Joubert Syndrome                               | TCTN2    | RECESSIVE | NM_024809.4    | 97.94% |
| Joubert Syndrome                               | TMEM138  | RECESSIVE | NM_016464.4    | 99.85% |
| Joubert Syndrome                               | TMEM216  | RECESSIVE | NM_001173990.2 | 98.50% |
| Joubert Syndrome                               | TMEM237  | RECESSIVE | NM_001044385.2 | 99.69% |
| Joubert Syndrome                               | TMEM67   | RECESSIVE | NM_153704.5    | 99.40% |
| Joubert Syndrome                               | TTC21B   | RECESSIVE | NM_024753.4    | 98.51% |
| Junctional Epidermolysis Bullosa               | COL17A1  | RECESSIVE | NM_000494.3    | 99.76% |
| Junctional Epidermolysis Bullosa               | LAMA3    | RECESSIVE | NM_000227.3    | 99.95% |



|   |           |           |                |        |
|---|-----------|-----------|----------------|--------|
| Junctional Epidermolysis Bullosa        | LAMB3     | RECESSIVE | NM_000228.2    | 98.81% |
| Junctional Epidermolysis Bullosa        | LAMC2     | RECESSIVE | NM_005562.2    | 99.49% |
| Juvenile Hereditary Hemochromatosis     | HAMP      | RECESSIVE | NM_021175.2    | 99.69% |
| Juvenile Hereditary Hemochromatosis     | HFE2      | RECESSIVE | NM_213653.3    | 99.62% |
| Juvenile Myoclonic Epilepsy             | CACNB4    | DOMINANT  | NM_000726.3    | 99.76% |
| Juvenile Myoclonic Epilepsy             | EFHC1     | DOMINANT  | NM_018100.3    | 98.91% |
| Juvenile Myoclonic Epilepsy             | GABRA1    | DOMINANT  | NM_000806.5    | 99.89% |
| Juvenile Paget Disease                  | TNFRSF11B | RECESSIVE | NM_002546.3    | 99.50% |
| Juvenile Polyposis                      | ENG       | DOMINANT  | NM_000118.2    | 97.28% |
| Juvenile Polyposis                      | SMAD4     | DOMINANT  | NM_005359.5    | 98.23% |
| Kabuki Syndrome                         | MLL2      | DOMINANT  | NM_003482.3    | 97.81% |
| Kallmann Syndrome                       | CHD7      | DOMINANT  | NM_017780.3    | 98.90% |
| Kallmann Syndrome                       | FGFR1     | DOMINANT  | NM_023110.2    | 98.79% |
| Kallmann Syndrome                       | PROKR2    | DOMINANT  | NM_144773.2    | 95.89% |
| Kanzaki disease                         | NAGA      | RECESSIVE | NM_000262.2    | 99.76% |
| KAT6B-Related Spectrum Disorders        | KAT6B     | DOMINANT  | NM_012330.3    | 99.14% |
| Keratitis-Ichthyosis-Deafness Syndrome  | GJB2      | DOMINANT  | NM_004004.5    | 97.20% |
| Keratoconus                             | VSX1      | DOMINANT  | NM_014588.5    | 97.29% |
| Ketothiolase Deficiency                 | ACAT1     | RECESSIVE | NM_000019.3    | 98.88% |
| Keutel Syndrome                         | MGP       | RECESSIVE | NM_000900.3    | 99.83% |
| Kindler Syndrome                        | FERMT1    | RECESSIVE | NM_017671.4    | 98.54% |
| Kleefstra Syndrome                      | EHMT1     | DOMINANT  | NM_024757.4    | 96.71% |
| Klippel-Feil Syndrome                   | GDF6      | DOMINANT  | NM_001001557.2 | 97.64% |
| Knobloch Syndrome                       | COL18A1   | RECESSIVE | NM_130445.2    | 95.38% |
| Krabbe Disease                          | GALC      | RECESSIVE | NM_000153.3    | 98.90% |
| Krabbe Disease                          | PSAP      | DOMINANT  | NM_002778.2    | 99.84% |
| Kufor-Rakeb Syndrome                    | ATP13A2   | RECESSIVE | NM_022089.2    | 96.02% |
| Lacrimo-Auriculo-Dento-Digital Syndrome | FGF10     | DOMINANT  | NM_004465.1    | 99.92% |
| Lacrimo-Auriculo-Dento-Digital Syndrome | FGFR2     | DOMINANT  | NM_000141.4    | 97.52% |

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| Lactate Dehydrogenase B Deficiency               | LDHB    | RECESSIVE | NM_002300.6    | 98.26% |
| Lactose Intolerance                              | LCT     | RECESSIVE | NM_002299.2    | 99.86% |
| Laing Distal Myopathy                            | MYH7    | DOMINANT  | NM_000257.2    | 99.12% |
| Langer-Giedion Syndrome                          | EXT1    | DOMINANT  | NM_000127.2    | 97.33% |
| Langer-Giedion Syndrome                          | TRPS1   | DOMINANT  | NM_014112.2    | 97.47% |
| L-Arginine:Glycine Amidinotransferase Deficiency | GATM    | RECESSIVE | NM_001482.2    | 99.69% |
| Larsen Syndrome                                  | CHST3   | RECESSIVE | NM_004273.4    | 98.22% |
| Laryngoonychocutaneous Syndrome                  | LAMA3   | RECESSIVE | NM_000227.3    | 99.95% |
| Lathosterolosis                                  | SC5DL   | RECESSIVE | NM_006918.4    | 98.08% |
| LCHAD Deficiency                                 | HADHA   | RECESSIVE | NM_000182.4    | 99.95% |
| Leber Congenital Amaurosis                       | AIPL1   | RECESSIVE | NM_014336.3    | 98.86% |
| Leber Congenital Amaurosis                       | CEP290  | RECESSIVE | NM_025114.3    | 99.36% |
| Leber Congenital Amaurosis                       | CRB1    | RECESSIVE | NM_201253.2    | 99.98% |
| Leber Congenital Amaurosis                       | CRX     | RECESSIVE | NM_000554.4    | 96.57% |
| Leber Congenital Amaurosis                       | IMPDH1  | RECESSIVE | NM_000883.3    | 96.28% |
| Leber Congenital Amaurosis                       | KCNJ13  | RECESSIVE | NM_002242.4    | 99.96% |
| Leber Congenital Amaurosis                       | LCA5    | RECESSIVE | NM_181714.3    | 99.68% |
| Leber Congenital Amaurosis                       | LRAT    | RECESSIVE | NM_004744.3    | 98.57% |
| Leber Congenital Amaurosis                       | RD3     | RECESSIVE | NM_183059.2    | 98.27% |
| Leber Congenital Amaurosis                       | RPE65   | RECESSIVE | NM_000329.2    | 99.90% |
| Leber Congenital Amaurosis                       | RPGRIP1 | RECESSIVE | NM_020366.3    | 99.78% |
| Leber Congenital Amaurosis                       | SPATA7  | RECESSIVE | NM_018418.4    | 99.91% |
| Leber Congenital Amaurosis                       | TULP1   | RECESSIVE | NM_003322.3    | 98.64% |
| Lecithin Cholesterol Acyltransferase Deficiency  | LCAT    | RECESSIVE | NM_000229.1    | 96.00% |
| Left Ventricular Noncompaction Cardiomyopathy    | ACTC1   | DOMINANT  | NM_005159.4    | 98.49% |
| Left Ventricular Noncompaction Cardiomyopathy    | DTNA    | DOMINANT  | NM_032978.6    | 99.49% |
| Left Ventricular Noncompaction Cardiomyopathy    | LDB3    | DOMINANT  | NM_001080116.1 | 99.33% |
| Left Ventricular Noncompaction Cardiomyopathy    | MYBPC3  | DOMINANT  | NM_000256.3    | 98.60% |
| Left Ventricular Noncompaction Cardiomyopathy    | MYH7    | DOMINANT  | NM_000257.2    | 99.12% |

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|---|----------|-----------|----------------|--------|
| Left Ventricular Noncompaction Cardiomyopathy         | TAZ      | DOMINANT  | NM_000116.3    | 90.55% |
| Left Ventricular Noncompaction Cardiomyopathy         | TNNT2    | DOMINANT  | NM_001001430.1 | 99.40% |
| Legius Syndrome                                       | SPRED1   | DOMINANT  | NM_152594.2    | 99.24% |
| Leigh Syndrome  | BCS1L    | RECESSIVE | NM_004328.4    | 97.20% |
| Leigh Syndrome  | COX10    | RECESSIVE | NM_001303.3    | 95.53% |
| Leigh Syndrome  | DLD      | RECESSIVE | NM_000108.3    | 99.95% |
| Leigh Syndrome  | LRPPRC   | RECESSIVE | NM_133259.3    | 99.39% |
| Leigh Syndrome  | NDUFA10  | RECESSIVE | NM_004544.3    | 99.01% |
| Leigh Syndrome  | NDUFAF2  | RECESSIVE | NM_174889.4    | 99.27% |
| Leigh Syndrome  | NDUFS1   | RECESSIVE | NM_005006.6    | 99.43% |
| Leigh Syndrome  | NDUFS3   | RECESSIVE | NM_004551.2    | 99.19% |
| Leigh Syndrome  | NDUFS4   | RECESSIVE | NM_002495.2    | 99.85% |
| Leigh Syndrome  | NDUFS7   | RECESSIVE | NM_024407.4    | 95.70% |
| Leigh Syndrome  | NDUFS8   | RECESSIVE | NM_002496.3    | 97.48% |
| Leigh Syndrome  | NDUFV1   | RECESSIVE | NM_007103.3    | 96.78% |
| Leigh Syndrome  | SCO1     | RECESSIVE | NM_004589.2    | 97.37% |
| LEOPARD Syndrome                                      | BRAF     | DOMINANT  | NM_004333.4    | 97.81% |
| LEOPARD Syndrome                                      | PTPN11   | DOMINANT  | NM_002834.3    | 98.03% |
| LEOPARD Syndrome                                      | RAF1     | DOMINANT  | NM_002880.3    | 99.39% |
| Leptin Deficiency                                     | LEP      | RECESSIVE | NM_000230.2    | 98.22% |
| Leptin Receptor Deficiency                            | LEPR     | RECESSIVE | NM_002303.5    | 98.34% |
| Lethal Arthrogryposis With Anterior Horn Cell Disease | GLE1     | DOMINANT  | NM_001003722.1 | 99.49% |
| Lethal Congenital Contracture Syndrome                | GLE1     | RECESSIVE | NM_001003722.1 | 99.49% |
| Lethal Encephalopathy                                 | DNM1L    | DOMINANT  | NM_012062.3    | 99.70% |
| Lethal Restrictive Dermopathy                         | LMNA     | RECESSIVE | NM_005572.3    | 96.33% |
| Lethal Restrictive Dermopathy                         | ZMPSTE24 | RECESSIVE | NM_005857.4    | 99.89% |
| Leukocyte Adhesion Deficiency                         | ITGB2    | RECESSIVE | NM_000211.3    | 98.87% |
| Leukodystrophy, Adult-Onset                           | LMNB1    | DOMINANT  | NM_005573.3    | 95.66% |
| Leukoencephalopathy with Brainstem and Spinal Cord    | DARS2    | RECESSIVE | NM_018122.4    | 99.54% |

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| Involvement and Lactate Elevation  |          |           |                |        |
| Leukoencephalopathy, Cystic, without Megalencephaly  | RNAS22   | RECESSIVE | NM_003730.4    | 99.14% |
| Leydig Cell Hypoplasia/Agenesis  | LHCGR    | RECESSIVE | NM_000233.3    | 98.17% |
| Liddle Syndrome  | SCNN1B   | DOMINANT  | NM_000336.2    | 98.80% |
| Li-Fraumeni Syndrome   | TP53     | DOMINANT  | NM_000546.4    | 97.63% |
| LIG4 Syndrome  | LIG4     | RECESSIVE | NM_002312.3    | 99.86% |
| Limb-Girdle Muscular Dystrophy, Dominant   | CAV3     | DOMINANT  | NM_033337.2    | 99.33% |
| Limb-Girdle Muscular Dystrophy, Dominant   | DNAJB6   | DOMINANT  | NM_058246.3    | 98.20% |
| Limb-Girdle Muscular Dystrophy, Dominant   | MYOT     | DOMINANT  | NM_006790.2    | 99.03% |
| Limb-Girdle Muscular Dystrophy, Recessive  | POMT1    | DOMINANT  | NM_007171.3    | 99.29% |
| Limb-Girdle Muscular Dystrophy, Recessive  | ANO5     | RECESSIVE | NM_213599.2    | 99.66% |
| Limb-Girdle Muscular Dystrophy, Recessive  | CAPN3    | RECESSIVE | NM_000070.2    | 99.52% |
| Limb-Girdle Muscular Dystrophy, Recessive  | DYSF     | RECESSIVE | NM_003494.3    | 98.83% |
| Limb-Girdle Muscular Dystrophy, Recessive  | LMNA     | RECESSIVE | NM_005572.3    | 96.33% |
| Limb-Girdle Muscular Dystrophy, Recessive  | POMGNT1  | RECESSIVE | NM_017739.3    | 97.69% |
| Limb-Girdle Muscular Dystrophy, Recessive  | SGCA     | RECESSIVE | NM_000023.2    | 99.02% |
| Limb-Girdle Muscular Dystrophy, Recessive  | SGCB     | RECESSIVE | NM_000232.4    | 98.84% |
| Limb-Girdle Muscular Dystrophy, Recessive  | SGCD     | RECESSIVE | NM_000337.5    | 99.33% |
| Limb-Girdle Muscular Dystrophy, Recessive  | SGCG     | RECESSIVE | NM_000231.2    | 99.52% |
| Limb-Girdle Muscular Dystrophy, Recessive  | TCAP     | RECESSIVE | NM_003673.3    | 98.58% |
| Limb-Girdle Muscular Dystrophy, Recessive  | TRIM32   | RECESSIVE | NM_012210.3    | 99.49% |
| Limb-Girdle Muscular Dystrophy, Recessive  | TTN      | RECESSIVE | NM_133378.4    | 99.55% |
| Limb-Girdle Myasthenia with Tubular Aggregates   | GFPT1    | RECESSIVE | NM_002056.3    | 98.71% |
| Lipoatrophy with Diabetes, Hepatic Steatosis, Hypertrophic Cardiomyopathy, and Leukomelanodermic Papules | LMNA     | DOMINANT  | NM_005572.3    | 96.33% |
| Lissencephaly, Dominant  | TUBA1A   | DOMINANT  | NM_006009.3    | 96.65% |
| Lissencephaly, Recessive   | NDE1     | RECESSIVE | NM_001143979.1 | 98.77% |
| Lissencephaly, Recessive   | RELN     | RECESSIVE | NM_005045.3    | 99.30% |
| Lissencephaly/Subcortical Band Heterotopia   | PAFAH1B1 | DOMINANT  | NM_000430.3    | 95.02% |

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| Localized AR Hypotrichosis                   | DSG4   | RECESSIVE | NM_177986.3    | 99.97%  |
| Loeys-Dietz Syndrome                         | SMAD3  | DOMINANT  | NM_005902.3    | 97.72%  |
| Loeys-Dietz Syndrome                         | TGFBR1 | DOMINANT  | NM_004612.2    | 97.77%  |
| Loeys-Dietz Syndrome                         | TGFBR2 | DOMINANT  | NM_003242.5    | 99.28%  |
| Long QT Syndrome                             | AKAP9  | DOMINANT  | NM_005751.4    | 99.71%  |
| Long QT Syndrome                             | ANK2   | DOMINANT  | NM_001148.4    | 99.75%  |
| Long QT Syndrome                             | CAV3   | DOMINANT  | NM_033337.2    | 99.33%  |
| Long QT Syndrome                             | KCNE1  | DOMINANT  | NM_000219.3    | 99.96%  |
| Long QT Syndrome                             | KCNE2  | DOMINANT  | NM_172201.1    | 100.00% |
| Long QT Syndrome                             | KCNH2  | DOMINANT  | NM_000238.3    | 88.25%  |
| Long QT Syndrome                             | KCNJ5  | DOMINANT  | NM_000890.3    | 95.90%  |
| Long QT Syndrome                             | KCNQ1  | DOMINANT  | NM_000218.2    | 92.10%  |
| Long QT Syndrome                             | SCN4B  | DOMINANT  | NM_174934.3    | 98.40%  |
| Long QT Syndrome                             | SCN5A  | DOMINANT  | NM_198056.2    | 98.54%  |
| Long QT Syndrome                             | SNTA1  | DOMINANT  | NM_003098.2    | 89.35%  |
| Long-Chain Acyl-CoA Dehydrogenase Deficiency | ACADL  | RECESSIVE | NM_001608.3    | 99.87%  |
| Lung Cancer                                  | EGFR   | DOMINANT  | NM_005228.3    | 97.21%  |
| Lymphoproliferative Syndrome                 | ITK    | RECESSIVE | NM_005546.3    | 99.92%  |
| Lynch Syndrome                               | EPCAM  | DOMINANT  | NM_002354.2    | 98.39%  |
| Lynch Syndrome                               | MLH1   | DOMINANT  | NM_000249.3    | 98.91%  |
| Lynch Syndrome                               | MLH3   | DOMINANT  | NM_001040108.1 | 99.59%  |
| Lynch Syndrome                               | MSH2   | DOMINANT  | NM_000251.1    | 98.79%  |
| Lynch Syndrome                               | MSH6   | DOMINANT  | NM_000179.2    | 99.46%  |
| Lynch Syndrome                               | PMS1   | DOMINANT  | NM_000534.4    | 99.43%  |
| Lynch Syndrome                               | PMS2   | DOMINANT  | NM_000535.5    | 75.95%  |
| Lysinuric Protein Intolerance                | SLC7A7 | RECESSIVE | NM_001126106.2 | 99.91%  |
| Macular Corneal Dystrophy                    | CHST6  | RECESSIVE | NM_021615.4    | 96.00%  |
| Macular Degeneration                         | ABCA4  | DOMINANT  | NM_000350.2    | 99.79%  |
| Macular Degeneration                         | ARMS2  | DOMINANT  | NM_001099667.1 | 99.25%  |

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|---------------------------------------|----------|-----------|-------------|--------|
| Macular Degeneration                  | C2       | DOMINANT  | NM_000063.4 | 99.90% |
| Macular Degeneration                  | C3       | DOMINANT  | NM_000064.2 | 98.50% |
| Macular Degeneration                  | CFB      | DOMINANT  | NM_001710.5 | 98.11% |
| Macular Degeneration                  | CFH      | DOMINANT  | NM_000186.3 | 98.32% |
| Macular Degeneration                  | ERCC6    | DOMINANT  | NM_000124.2 | 99.64% |
| Macular Degeneration                  | FBLN5    | DOMINANT  | NM_006329.3 | 98.82% |
| Macular Degeneration                  | HMCN1    | DOMINANT  | NM_031935.2 | 99.84% |
| Macular Degeneration                  | RAX2     | DOMINANT  | NM_032753.3 | 98.22% |
| Mainzer-Saldino Syndrome              | IFT140   | RECESSIVE | NM_014714.3 | 97.76% |
| Majeed Syndrome                       | LPIN2    | RECESSIVE | NM_014646.2 | 99.69% |
| Mal de Meleda                         | SLURP1   | RECESSIVE | NM_020427.2 | 98.93% |
| Male Infertility                      | CATSPER1 | RECESSIVE | NM_053054.3 | 98.60% |
| Male-Limited Precocious Puberty       | LHCGR    | DOMINANT  | NM_000233.3 | 98.17% |
| Malignant Hyperthermia Susceptibility | CACNA1S  | DOMINANT  | NM_000069.2 | 99.06% |
| Malignant Hyperthermia Susceptibility | RYR1     | DOMINANT  | NM_000540.2 | 97.36% |
| Malonyl-CoA Decarboxylase Deficiency  | MLYCD    | RECESSIVE | NM_012213.2 | 95.49% |
| Mandibuloacral Dysplasia              | LMNA     | RECESSIVE | NM_005572.3 | 96.33% |
| Mandibuloacral Dysplasia              | ZMPSTE24 | RECESSIVE | NM_005857.4 | 99.89% |
| Manitoba Oculotrichoanal Syndrome     | FREM1    | RECESSIVE | NM_144966.5 | 99.81% |
| Mannose-Binding Protein Deficiency    | MBL2     | RECESSIVE | NM_000242.2 | 99.72% |
| Maple Syrup Urine Disease             | BCKDHA   | RECESSIVE | NM_000709.3 | 99.14% |
| Maple Syrup Urine Disease             | BCKDHB   | RECESSIVE | NM_183050.2 | 97.59% |
| Maple Syrup Urine Disease             | DBT      | RECESSIVE | NM_001918.2 | 98.69% |
| Maple Syrup Urine Disease             | DLD      | RECESSIVE | NM_000108.3 | 99.95% |
| MAPT-Related Spectrum Disorders       | MAPT     | DOMINANT  | NM_005910.5 | 96.95% |
| Marfan Syndrome                       | FBN1     | DOMINANT  | NM_000138.4 | 99.59% |
| Marinesco-Sjogren Syndrome            | SIL1     | RECESSIVE | NM_022464.4 | 97.87% |
| Marshall Syndrome                     | COL11A1  | DOMINANT  | NM_001854.3 | 98.66% |
| Martolf Syndrome                      | RAB3GAP2 | RECESSIVE | NM_012414.3 | 99.31% |

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| MASP2 Deficiency   | MASP2    | RECESSIVE | NM_006610.3    | 99.92% |
| MASS Syndrome  | FBN1     | DOMINANT  | NM_000138.4    | 99.59% |
| Mast Cell Disease  | KIT      | DOMINANT  | NM_000222.2    | 99.98% |
| Maturity Onset Diabetes of the Young                       | BLK      | DOMINANT  | NM_001715.2    | 98.65% |
| Maturity Onset Diabetes of the Young                       | GCK      | DOMINANT  | NM_000162.3    | 96.32% |
| Maturity Onset Diabetes of the Young                       | HNF1A    | DOMINANT  | NM_000545.5    | 99.22% |
| Maturity Onset Diabetes of the Young                       | HNF4A    | DOMINANT  | NM_000457.4    | 98.07% |
| Maturity Onset Diabetes of the Young                       | INS      | DOMINANT  | NM_000207.2    | 99.12% |
| Maturity Onset Diabetes of the Young                       | KCNJ11   | DOMINANT  | NM_000525.3    | 91.82% |
| Maturity Onset Diabetes of the Young                       | KLF11    | DOMINANT  | NM_003597.4    | 96.44% |
| Maturity Onset Diabetes of the Young                       | NEUROD1  | DOMINANT  | NM_002500.4    | 96.37% |
| Maturity Onset Diabetes of the Young                       | PAX4     | DOMINANT  | NM_006193.2    | 98.92% |
| May-Hegglin Anomaly  | MYH9     | DOMINANT  | NM_002473.4    | 99.28% |
| MCAD Deficiency  | ACADM    | RECESSIVE | NM_000016.4    | 97.83% |
| McKusick-Kaufman Syndrome                                  | MKKS     | RECESSIVE | NM_018848.3    | 99.99% |
| Meacham Syndrome   | WT1      | DOMINANT  | NM_024426.4    | 95.44% |
| Meckel Syndrome  | B9D1     | RECESSIVE | NM_015681.3    | 99.60% |
| Meckel Syndrome  | B9D2     | RECESSIVE | NM_030578.3    | 99.33% |
| Meckel Syndrome  | CC2D2A   | RECESSIVE | NM_001080522.2 | 99.94% |
| Meckel Syndrome  | CEP290   | RECESSIVE | NM_025114.3    | 99.36% |
| Meckel Syndrome  | MKS1     | RECESSIVE | NM_017777.3    | 99.30% |
| Meckel Syndrome  | NPHP3    | RECESSIVE | NM_153240.4    | 96.76% |
| Meckel Syndrome  | RPGRIP1L | RECESSIVE | NM_015272.2    | 99.57% |
| Meckel Syndrome  | TCTN2    | RECESSIVE | NM_024809.4    | 97.94% |
| Meckel Syndrome  | TMEM216  | RECESSIVE | NM_001173990.2 | 98.50% |
| Meckel Syndrome  | TMEM67   | RECESSIVE | NM_153704.5    | 99.40% |
| Medulloblastoma  | SUFU     | DOMINANT  | NM_016169.3    | 98.84% |
| Megalencephalic Leukoencephalopathy with Subcortical Cysts | HEPACAM  | RECESSIVE | NM_152722.4    | 96.32% |

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|--|----------|-----------|-------------|--------|
| Megalencephalic Leukoencephalopathy with Subcortical Cysts                         | MLC1     | RECESSIVE | NM_015166.3 | 97.63% |
| Megaloblastic Anemia   | CUBN     | RECESSIVE | NM_001081.3 | 99.82% |
| Meier-Gorlin Syndrome  | CDC6     | RECESSIVE | NM_001254.3 | 99.92% |
| Meier-Gorlin Syndrome  | ORC1     | RECESSIVE | NM_004153.3 | 99.96% |
| Meier-Gorlin Syndrome  | ORC6     | RECESSIVE | NM_014321.3 | 99.85% |
| Mental Retardation with Language Impairment and Autistic Features                  | FOXP1    | DOMINANT  | NM_032682.5 | 96.66% |
| Mental Retardation, Dominant   | DYNC1H1  | DOMINANT  | NM_001376.4 | 99.09% |
| Mental Retardation, Dominant   | GRIN2B   | DOMINANT  | NM_000834.3 | 99.80% |
| Mental Retardation, Dominant   | KIF1A    | DOMINANT  | NM_004321.6 | 98.68% |
| Mental Retardation, Dominant   | MBD5     | DOMINANT  | NM_018328.4 | 99.86% |
| Mental Retardation, Recessive  | MAN1B1   | RECESSIVE | NM_016219.4 | 95.94% |
| Mental Retardation, Recessive  | NSUN2    | RECESSIVE | NM_017755.5 | 99.61% |
| Mental Retardation, Recessive  | TRAPPC9  | RECESSIVE | NM_031466.5 | 98.54% |
| Mental Retardation, Stereotypic Movements, Epilepsy, and/or Cerebral Malformations | MEF2C    | DOMINANT  | NM_002397.4 | 98.41% |
| Mental Retardation, X-linked   | ARHGEF6  | X_LINKED  | NM_004840.2 | 97.27% |
| Mental Retardation, X-linked   | IL1RAPL1 | X_LINKED  | NM_014271.3 | 96.18% |
| Mental Retardation, X-linked   | RAB39B   | X_LINKED  | NM_171998.2 | 95.60% |
| Mental Retardation, X-linked   | ZNF81    | X_LINKED  | NM_007137.3 | 97.19% |
| Metachondromatosis   | PTPN11   | DOMINANT  | NM_002834.3 | 98.03% |
| Metachromatic Leukodystrophy   | PSAP     | RECESSIVE | NM_002778.2 | 99.84% |
| Metaphyseal Anadysplasia   | MMP13    | DOMINANT  | NM_002427.3 | 99.91% |
| Metaphyseal Chondrodysplasia   | COL10A1  | DOMINANT  | NM_000493.3 | 99.97% |
| Metaphyseal Chondrodysplasia   | PTH1R    | DOMINANT  | NM_000316.2 | 98.57% |
| Metatropic Dysplasia   | TRPV4    | DOMINANT  | NM_021625.4 | 97.17% |
| Methylmalonate Semialdehyde Dehydrogenase Deficiency                               | ALDH6A1  | RECESSIVE | NM_005589.2 | 99.76% |
| Methylmalonic Acidemia   | MCEE     | RECESSIVE | NM_032601.3 | 96.22% |



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|---|----------|-----------|----------------|--------|
| Methylmalonic Acidemia  | MMAA     | RECESSIVE | NM_172250.2    | 99.47% |
| Methylmalonic Acidemia  | MMAB     | RECESSIVE | NM_052845.3    | 96.68% |
| Methylmalonic Acidemia  | MMADHC   | RECESSIVE | NM_015702.2    | 99.95% |
| Methylmalonic Acidemia  | MUT      | RECESSIVE | NM_000255.3    | 99.54% |
| Mevalonicaciduria   | MVK      | RECESSIVE | NM_000431.2    | 99.43% |
| MHC Class II Deficiency   | RFXANK   | RECESSIVE | NM_003721.2    | 98.85% |
| Microcephalic Osteodysplastic Primordial Dwarfism               | PCNT     | RECESSIVE | NM_006031.5    | 98.70% |
| Microcephaly, Cortical Malformations, and Mental Retardation    | WDR62    | RECESSIVE | NM_001083961.1 | 98.54% |
| Microtia, Hearing Impairment, and Cleft Palate                  | HOXA2    | RECESSIVE | NM_006735.3    | 97.57% |
| Mitochondrial Complex V (ATP Synthase) Deficiency, Nuclear Type | ATPAF2   | RECESSIVE | NM_145691.3    | 97.54% |
| Mitochondrial Complex V (ATP Synthase) Deficiency, Nuclear Type | TMEM70   | RECESSIVE | NM_017866.5    | 98.97% |
| Mitochondrial DNA Depletion Syndrome                            | C10orf2  | RECESSIVE | NM_021830.4    | 98.46% |
| Mitochondrial DNA Depletion Syndrome                            | DGUOK    | RECESSIVE | NM_080916.2    | 99.95% |
| Mitochondrial DNA Depletion Syndrome                            | MPV17    | RECESSIVE | NM_002437.4    | 97.52% |
| Mitochondrial DNA Depletion Syndrome                            | RRM2B    | RECESSIVE | NM_015713.4    | 97.04% |
| Mitochondrial DNA Depletion Syndrome                            | SUCLA2   | RECESSIVE | NM_003850.2    | 99.43% |
| Mitochondrial DNA Depletion Syndrome                            | SUCLG1   | RECESSIVE | NM_003849.3    | 98.92% |
| Mitochondrial DNA Depletion Syndrome                            | TK2      | RECESSIVE | NM_004614.4    | 99.39% |
| Mitochondrial Membrane Protein-Associated Neurodegeneration     | C19orf12 | RECESSIVE | NM_001031726.3 | 97.99% |
| Mitochondrial Neurogastrointestinal Encephalopathy Disease      | TYMP     | RECESSIVE | NM_001953.4    | 96.63% |
| Mitochondrial Phosphate Carrier Deficiency                      | SLC25A3  | RECESSIVE | NM_005888.3    | 99.76% |
| Mitochondrial Respiratory Chain Complex I Deficiency            | FOXRED1  | RECESSIVE | NM_017547.3    | 96.62% |
| Mitochondrial Respiratory Chain Complex I Deficiency            | NDUFA10  | RECESSIVE | NM_004544.3    | 99.01% |
| Mitochondrial Respiratory Chain Complex I Deficiency            | NDUFA11  | RECESSIVE | NM_175614.4    | 98.25% |
| Mitochondrial Respiratory Chain Complex I Deficiency            | NDUFA2   | RECESSIVE | NM_002488.4    | 99.53% |

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| Mitochondrial Respiratory Chain Complex I Deficiency   | NDUFAF1 | RECESSIVE | NM_016013.3    | 98.43% |
| Mitochondrial Respiratory Chain Complex I Deficiency   | NDUFAF2 | RECESSIVE | NM_174889.4    | 99.27% |
| Mitochondrial Respiratory Chain Complex I Deficiency   | NDUFAF3 | RECESSIVE | NM_199069.1    | 99.32% |
| Mitochondrial Respiratory Chain Complex I Deficiency   | NDUFAF4 | RECESSIVE | NM_014165.3    | 99.72% |
| Mitochondrial Respiratory Chain Complex I Deficiency   | NDUFS1  | RECESSIVE | NM_005006.6    | 99.43% |
| Mitochondrial Respiratory Chain Complex I Deficiency   | NDUFS2  | RECESSIVE | NM_004550.4    | 99.69% |
| Mitochondrial Respiratory Chain Complex I Deficiency   | NDUFS3  | RECESSIVE | NM_004551.2    | 99.19% |
| Mitochondrial Respiratory Chain Complex I Deficiency   | NDUFS4  | RECESSIVE | NM_002495.2    | 99.85% |
| Mitochondrial Respiratory Chain Complex I Deficiency   | NDUFS6  | RECESSIVE | NM_004553.4    | 98.73% |
| Mitochondrial Respiratory Chain Complex I Deficiency   | NDUFS7  | RECESSIVE | NM_024407.4    | 95.70% |
| Mitochondrial Respiratory Chain Complex I Deficiency   | NDUFS8  | RECESSIVE | NM_002496.3    | 97.48% |
| Mitochondrial Respiratory Chain Complex I Deficiency   | NDUFV1  | RECESSIVE | NM_007103.3    | 96.78% |
| Mitochondrial Respiratory Chain Complex I Deficiency   | NDUFV2  | RECESSIVE | NM_021074.4    | 99.32% |
| Mitochondrial Respiratory Chain Complex I Deficiency   | NUBPL   | RECESSIVE | NM_025152.2    | 98.61% |
| Mitochondrial Respiratory Chain Complex II Deficiency  | SDHAF1  | RECESSIVE | NM_001042631.2 | 98.07% |
| Mitochondrial Respiratory Chain Complex III Deficiency | BCS1L   | RECESSIVE | NM_004328.4    | 97.20% |
| Mitochondrial Respiratory Chain Complex III Deficiency | TTC19   | RECESSIVE | NM_017775.3    | 97.21% |
| Mitochondrial Respiratory Chain Complex III Deficiency | UQCRCQ  | RECESSIVE | NM_014402.4    | 99.93% |
| Mitochondrial Respiratory Chain Complex IV Deficiency  | COX10   | RECESSIVE | NM_001303.3    | 95.53% |
| Mitochondrial Respiratory Chain Complex IV Deficiency  | COX15   | RECESSIVE | NM_004376.5    | 99.67% |
| Mitochondrial Respiratory Chain Complex IV Deficiency  | COX6B1  | RECESSIVE | NM_001863.4    | 99.85% |
| Mitochondrial Respiratory Chain Complex IV Deficiency  | FASTKD2 | RECESSIVE | NM_014929.3    | 99.32% |
| Mitochondrial Respiratory Chain Complex IV Deficiency  | SCO1    | RECESSIVE | NM_004589.2    | 97.37% |
| Mitochondrial Respiratory Chain Complex IV Deficiency  | SCO2    | RECESSIVE | NM_005138.2    | 97.71% |
| Miyoshi Muscular Dystrophy                             | ANO5    | RECESSIVE | NM_213599.2    | 99.66% |
| Molybdenum Cofactor Deficiency                         | MOCS1   | RECESSIVE | NM_005943.5    | 99.21% |
| Molybdenum Cofactor Deficiency                         | MOCS2   | RECESSIVE | NM_176806.2    | 99.78% |
| Monilethrix  | KRT83   | DOMINANT  | NM_002282.3    | 99.41% |
| Monogenic Non-Syndromic Obesity                        | LEP     | RECESSIVE | NM_000230.2    | 98.22% |

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|---|--------|-----------|----------------|--------|
| Monogenic Non-Syndromic Obesity                     | LEPR   | RECESSIVE | NM_002303.5    | 98.34% |
| Monogenic Non-Syndromic Obesity                     | PCSK1  | RECESSIVE | NM_000439.4    | 99.89% |
| Monogenic Non-Syndromic Obesity                     | POMC   | RECESSIVE | NM_001035256.1 | 98.78% |
| Mononeuropathy of the Median Nerve                  | SH3TC2 | RECESSIVE | NM_024577.3    | 99.34% |
| Mowat-Wilson Syndrome                               | ZEB2   | DOMINANT  | NM_014795.3    | 98.94% |
| Moyamoya Disease                                    | ACTA2  | DOMINANT  | NM_001613.2    | 99.98% |
| MTHFR Deficiency                                    | MTHFR  | DOMINANT  | NM_005957.4    | 98.66% |
| MTHFR Thermolabile Variant                          | MTHFR  | DOMINANT  | NM_005957.4    | 98.66% |
| Muckle-Wells Syndrome                               | NLRP3  | DOMINANT  | NM_004895.4    | 99.48% |
| Mucopolipidosis, Type I                             | NEU1   | RECESSIVE | NM_000434.3    | 99.66% |
| Mucopolipidosis, Type II                            | GNPTAB | RECESSIVE | NM_024312.4    | 98.42% |
| Mucopolipidosis, Type III Alpha/Beta                | GNPTAB | RECESSIVE | NM_024312.4    | 98.42% |
| Mucopolipidosis, Type III Gamma                     | GNPTG  | X_LINKED  | NM_032520.4    | 96.11% |
| Mucopolipidosis, Type IV                            | MCOLN1 | RECESSIVE | NM_020533.2    | 95.22% |
| Mucopolysaccharidosis, Type I                       | IDUA   | RECESSIVE | NM_000203.3    | 92.99% |
| Mucopolysaccharidosis, Type III                     | GNS    | RECESSIVE | NM_002076.3    | 99.69% |
| Mucopolysaccharidosis, Type III                     | HGSNAT | RECESSIVE | NM_152419.2    | 98.16% |
| Mucopolysaccharidosis, Type III                     | NAGLU  | RECESSIVE | NM_000263.3    | 95.23% |
| Mucopolysaccharidosis, Type III                     | SGSH   | RECESSIVE | NM_000199.3    | 95.57% |
| Mucopolysaccharidosis, Type IV                      | GALNS  | RECESSIVE | NM_000512.4    | 96.52% |
| Mucopolysaccharidosis, Type IV                      | GLB1   | RECESSIVE | NM_000404.2    | 99.90% |
| Mucopolysaccharidosis, Type IX                      | HYAL1  | RECESSIVE | NM_153281.1    | 96.46% |
| Mucopolysaccharidosis, Type VI                      | ARSB   | RECESSIVE | NM_000046.3    | 98.19% |
| Mucopolysaccharidosis, Type VII                     | GUSB   | RECESSIVE | NM_000181.3    | 97.65% |
| Mulibrey Nanism                                     | TRIM37 | RECESSIVE | NM_015294.3    | 99.45% |
| Multicentric Carpotarsal Osteolysis Syndrome        | MAFB   | DOMINANT  | NM_005461.3    | 98.66% |
| Multicentric Osteolysis of Torg                     | MMP2   | RECESSIVE | NM_004530.4    | 97.78% |
| Multicentric Osteolysis, Nodulosis, and Arthropathy | MMP2   | RECESSIVE | NM_004530.4    | 97.78% |
| Multiminicore Disease                               | RYR1   | DOMINANT  | NM_000540.2    | 97.36% |

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| Multiple Acyl-CoA Dehydrogenase Deficiency                       | ETF A   | RECESSIVE | NM_000126.3    | 99.46% |
| Multiple Acyl-CoA Dehydrogenase Deficiency                       | ETFDH   | RECESSIVE | NM_004453.2    | 99.69% |
| Multiple Cutaneous and Mucosal Venous Malformations              | TEK     | DOMINANT  | NM_000459.3    | 99.92% |
| Multiple Cutaneous and Uterine Leiomyomas                        | FH      | DOMINANT  | NM_000143.3    | 99.47% |
| Multiple Endocrine Neoplasia                                     | CDKN1B  | DOMINANT  | NM_004064.3    | 99.09% |
| Multiple Endocrine Neoplasia                                     | MEN1    | DOMINANT  | NM_130799.2    | 96.55% |
| Multiple Endocrine Neoplasia                                     | RET     | DOMINANT  | NM_020975.4    | 98.25% |
| Multiple Epiphyseal Dysplasia with Early-Onset Diabetes Mellitus | EIF2AK3 | RECESSIVE | NM_004836.5    | 98.69% |
| Multiple Epiphyseal Dysplasia, Dominant                          | COL9A1  | DOMINANT  | NM_001851.4    | 99.62% |
| Multiple Epiphyseal Dysplasia, Dominant                          | COL9A2  | DOMINANT  | NM_001852.3    | 98.66% |
| Multiple Epiphyseal Dysplasia, Dominant                          | COL9A3  | DOMINANT  | NM_001853.3    | 95.56% |
| Multiple Epiphyseal Dysplasia, Dominant                          | COMP    | DOMINANT  | NM_000095.2    | 95.67% |
| Multiple Epiphyseal Dysplasia, Dominant                          | MATN3   | DOMINANT  | NM_002381.4    | 96.56% |
| Multiple Epiphyseal Dysplasia, Recessive                         | SLC26A2 | DOMINANT  | NM_000112.3    | 99.63% |
| Multiple Familial Trichoepithelioma                              | CYLD    | DOMINANT  | NM_015247.2    | 99.42% |
| Multiple Mitochondrial Dysfunctions Syndrome                     | BOLA3   | RECESSIVE | NM_212552.2    | 98.99% |
| Multiple Mitochondrial Dysfunctions Syndrome                     | NFU1    | RECESSIVE | NM_001002755.2 | 99.74% |
| Multiple Pterygium Syndrome                                      | CHRNA1  | RECESSIVE | NM_000079.3    | 99.50% |
| Multiple Pterygium Syndrome                                      | CHRND   | RECESSIVE | NM_000751.2    | 98.75% |
| Multiple Pterygium Syndrome                                      | CHRNA3  | RECESSIVE | NM_005199.4    | 96.52% |
| Multiple Sulfatase Deficiency                                    | SUMF1   | RECESSIVE | NM_182760.3    | 99.06% |
| Multiple Synostoses Syndrome                                     | FGF9    | DOMINANT  | NM_002010.2    | 97.21% |
| Multiple Synostoses Syndrome                                     | GDF5    | DOMINANT  | NM_000557.2    | 98.65% |
| Multisystemic Smooth Muscle Dysfunction Syndrome                 | ACTA2   | DOMINANT  | NM_001613.2    | 99.98% |
| MYH9-related disorder  | MYH9    | DOMINANT  | NM_002473.4    | 99.28% |
| MYH-Associated Polyposis   | MUTYH   | RECESSIVE | NM_001048171.1 | 99.52% |
| Myhre Syndrome   | SMAD4   | DOMINANT  | NM_005359.5    | 98.23% |
| Myoadenylate Deaminase Deficiency                                | AMPD1   | RECESSIVE | NM_000036.2    | 99.94% |

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| Myoclonus-Dystonia   | SGCE    | DOMINANT  | NM_003919.2    | 99.27% |
| Myofibrillar Myopathy, Dominant  | BAG3    | DOMINANT  | NM_004281.3    | 97.40% |
| Myofibrillar Myopathy, Dominant  | DNAJB6  | DOMINANT  | NM_058246.3    | 98.20% |
| Myofibrillar Myopathy, Dominant  | LDB3    | DOMINANT  | NM_001080116.1 | 99.33% |
| Myofibrillar Myopathy, Dominant  | MYOT    | DOMINANT  | NM_006790.2    | 99.03% |
| Myofibrillar Myopathy, Mixed   | DES     | DOMINANT  | NM_001927.3    | 96.15% |
| Myofibrillar Myopathy, Recessive   | CRYAB   | DOMINANT  | NM_001885.1    | 99.76% |
| Myokymia   | KCNA1   | DOMINANT  | NM_000217.2    | 98.67% |
| Myopathy, Early-Onset, Areflexia, Respiratory Distress, and Dysphagia    | MEGF10  | RECESSIVE | NM_032446.2    | 99.87% |
| Myopathy, Lactic Acidosis, and Sideroblastic Anemia                      | YARS2   | RECESSIVE | NM_001040436.2 | 98.74% |
| Myosclerosis   | COL6A2  | RECESSIVE | NM_001849.3    | 93.40% |
| Myosin Storage Myopathy  | MYH7    | DOMINANT  | NM_000257.2    | 99.12% |
| Myostatin-Related Muscle Hypertrophy                                     | MSTN    | RECESSIVE | NM_005259.2    | 99.98% |
| Myotonia Congenita   | CLCN1   | DOMINANT  | NM_000083.2    | 98.20% |
| N-Acetylglutamate Synthase Deficiency                                    | NAGS    | RECESSIVE | NM_153006.2    | 95.91% |
| Nager Syndrome   | SF3B4   | DOMINANT  | NM_005850.4    | 99.66% |
| Nail-Patella Syndrome  | LMX1B   | DOMINANT  | NM_002316.3    | 98.55% |
| Natural Killer Cell and Glucocorticoid Deficiency with DNA Repair Defect | MCM4    | RECESSIVE | NM_005914.3    | 98.51% |
| Naxos Disease  | JUP     | RECESSIVE | NM_002230.2    | 98.34% |
| Nemaline Myopathy  | TNNT1   | DOMINANT  | NM_003283.4    | 95.86% |
| Nemaline Myopathy  | TPM2    | DOMINANT  | NM_003289.3    | 97.92% |
| Nemaline Myopathy  | TPM3    | DOMINANT  | NM_152263.2    | 98.81% |
| Nemaline Myopathy, Dominant  | ACTA1   | DOMINANT  | NM_001100.3    | 96.57% |
| Nemaline Myopathy, Dominant  | KBTBD13 | DOMINANT  | NM_001101362.2 | 97.11% |
| Nemaline Myopathy, Recessive   | CFL2    | RECESSIVE | NM_021914.7    | 99.87% |
| Nemaline Myopathy, Recessive   | NEB     | RECESSIVE | NM_004543.4    | 99.75% |
| Neonatal Severe Primary Hyperparathyroidism                              | CASR    | RECESSIVE | NM_000388.3    | 99.26% |

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| Nephrogenic Diabetes Insipidus                                | AQP2     | DOMINANT  | NM_000486.5    | 99.39% |
| Nephronophthisis  | GLIS2    | RECESSIVE | NM_032575.2    | 97.92% |
| Nephronophthisis  | INVS     | RECESSIVE | NM_014425.3    | 99.52% |
| Nephronophthisis  | NEK8     | RECESSIVE | NM_178170.2    | 97.58% |
| Nephronophthisis  | NPHP1    | RECESSIVE | NM_000272.3    | 99.47% |
| Nephronophthisis  | NPHP3    | RECESSIVE | NM_153240.4    | 96.76% |
| Nephronophthisis  | NPHP4    | RECESSIVE | NM_015102.3    | 97.44% |
| Nephronophthisis  | RPGRIP1L | RECESSIVE | NM_015272.2    | 99.57% |
| Nephronophthisis  | TMEM67   | RECESSIVE | NM_153704.5    | 99.40% |
| Nephronophthisis-Like Nephropathy                             | XPNPEP3  | RECESSIVE | NM_022098.3    | 97.65% |
| Nephropathic Cystinosis                                       | CTNS     | RECESSIVE | NM_004937.2    | 97.66% |
| Nephrotic Syndrome  | LAMB2    | RECESSIVE | NM_002292.3    | 97.67% |
| Nephrotic Syndrome  | PLCE1    | RECESSIVE | NM_016341.3    | 99.31% |
| Nestor-Guillermo Progeria Syndrome                            | BANF1    | RECESSIVE | NM_001143985.1 | 98.13% |
| Netherton Syndrome  | SPINK5   | RECESSIVE | NM_006846.3    | 99.82% |
| Neural Tube Defect  | VANGL1   | DOMINANT  | NM_138959.2    | 98.53% |
| Neural Tube Defects, Folate-Sensitive                         | MTHFR    | DOMINANT  | NM_005957.4    | 98.66% |
| Neuroblastoma   | KIF1B    | DOMINANT  | NM_015074.3    | 98.68% |
| Neuroblastoma   | PHOX2B   | DOMINANT  | NM_003924.3    | 94.04% |
| Neuroblastoma Susceptibility                                  | ALK      | DOMINANT  | NM_004304.4    | 97.38% |
| Neurodegeneration   | PLA2G6   | RECESSIVE | NM_003560.2    | 98.10% |
| Neurodegeneration due to Cerebral Folate Transport Deficiency | FOLR1    | RECESSIVE | NM_016725.2    | 99.82% |
| Neuroferritinopathy   | FTL      | DOMINANT  | NM_000146.3    | 98.97% |
| Neurofibromatosis, Type 1                                     | NF1      | DOMINANT  | NM_000267.3    | 98.11% |
| Neurofibromatosis, Type 2                                     | NF2      | DOMINANT  | NM_000268.3    | 96.91% |
| Neurofibromatosis-Noonan Syndrome                             | NF1      | DOMINANT  | NM_000267.3    | 98.11% |
| Neurogenic Scapulooperoneal Syndrome                          | DES      | DOMINANT  | NM_001927.3    | 96.15% |
| Neurologic Disorders/Seipinopathy                             | BSCL2    | DOMINANT  | NM_032667.6    | 98.94% |

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| Neuronal Ceroid-Lipofuscinosis, Dominant/Recessive | CLN3    | DOMINANT  | NM_001042432.1 | 99.14% |
| Neuronal Ceroid-Lipofuscinosis, Dominant/Recessive | CLN5    | DOMINANT  | NM_006493.2    | 99.09% |
| Neuronal Ceroid-Lipofuscinosis, Dominant/Recessive | CTSD    | DOMINANT  | NM_001909.4    | 97.23% |
| Neuronal Ceroid-Lipofuscinosis, Recessive          | CLN6    | RECESSIVE | NM_017882.2    | 96.75% |
| Neuronal Ceroid-Lipofuscinosis, Recessive          | DNAJC5  | RECESSIVE | NM_025219.2    | 96.58% |
| Neuronal Ceroid-Lipofuscinosis, Recessive          | MFSD8   | RECESSIVE | NM_152778.2    | 98.86% |
| Neuronal Ceroid-Lipofuscinosis, Recessive          | PPT1    | RECESSIVE | NM_000310.3    | 98.74% |
| Neuronal Ceroid-Lipofuscinosis, Recessive          | TPP1    | RECESSIVE | NM_000391.3    | 99.30% |
| Neutral Lipid Storage Disease with Myopathy        | PNPLA2  | RECESSIVE | NM_020376.3    | 97.61% |
| Nevoid Basal Cell Carcinoma Syndrome               | PTCH1   | DOMINANT  | NM_000264.3    | 97.68% |
| Newfoundland Rod-Cone Dystrophy                    | RLBP1   | RECESSIVE | NM_000326.4    | 97.56% |
| Nicolaides-Baraitser Syndrome                      | SMARCA2 | DOMINANT  | NM_003070.3    | 97.97% |
| Niemann-Pick Disease                               | NPC1    | RECESSIVE | NM_000271.4    | 99.29% |
| Niemann-Pick Disease                               | NPC2    | RECESSIVE | NM_006432.3    | 96.54% |
| Nijmegen Breakage Syndrome                         | NBN     | RECESSIVE | NM_002485.4    | 99.86% |
| Nocturnal Frontal Lobe Epilepsy                    | CHRNA2  | DOMINANT  | NM_000742.3    | 95.50% |
| Nonaka Myopathy                                    | GNE     | DOMINANT  | NM_005476.5    | 95.71% |
| Nonautoimmune Hyperthyroidism                      | TSHR    | DOMINANT  | NM_000369.2    | 99.89% |
| Non-Classic Cystic Fibrosis-Like Syndrome          | SCNN1B  | DOMINANT  | NM_000336.2    | 98.80% |
| Nonepidermolytic Palmoplantar Hyperkeratosis       | KRT1    | DOMINANT  | NM_006121.3    | 96.60% |
| Nonspecific Cardiac Conduction Defect              | SCN1B   | DOMINANT  | NM_001037.4    | 90.69% |
| Nonsyndromic Hearing Loss, Dominant                | COCH    | DOMINANT  | NM_004086.2    | 99.71% |
| Nonsyndromic Hearing Loss, Dominant                | COL11A2 | DOMINANT  | NM_080680.2    | 99.38% |
| Nonsyndromic Hearing Loss, Dominant                | EYA4    | DOMINANT  | NM_172105.3    | 99.82% |
| Nonsyndromic Hearing Loss, Dominant                | GJB2    | DOMINANT  | NM_004004.5    | 97.20% |
| Nonsyndromic Hearing Loss, Dominant                | GJB3    | DOMINANT  | NM_024009.2    | 96.05% |
| Nonsyndromic Hearing Loss, Dominant                | GJB6    | DOMINANT  | NM_006783.4    | 99.83% |
| Nonsyndromic Hearing Loss, Dominant                | MYH14   | DOMINANT  | NM_024729.3    | 97.84% |
| Nonsyndromic Hearing Loss, Dominant                | MYH9    | DOMINANT  | NM_002473.4    | 99.28% |

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| Nonsyndromic Hearing Loss, Dominant  | MYO1A    | DOMINANT  | NM_005379.2    | 99.92% |
| Nonsyndromic Hearing Loss, Dominant  | MYO6     | DOMINANT  | NM_004999.3    | 99.22% |
| Nonsyndromic Hearing Loss, Dominant  | MYO7A    | DOMINANT  | NM_000260.3    | 98.70% |
| Nonsyndromic Hearing Loss, Dominant  | POU4F3   | DOMINANT  | NM_002700.2    | 94.81% |
| Nonsyndromic Hearing Loss, Dominant  | SIX1     | DOMINANT  | NM_005982.3    | 98.47% |
| Nonsyndromic Hearing Loss, Dominant  | SLC17A8  | DOMINANT  | NM_139319.2    | 98.94% |
| Nonsyndromic Hearing Loss, Dominant  | TECTA    | DOMINANT  | NM_005422.2    | 98.28% |
| Nonsyndromic Hearing Loss, Dominant  | TJP2     | DOMINANT  | NM_004817.3    | 99.24% |
| Nonsyndromic Hearing Loss, Dominant  | TMC1     | DOMINANT  | NM_138691.2    | 99.22% |
| Nonsyndromic Hearing Loss, Dominant  | WFS1     | DOMINANT  | NM_006005.3    | 86.69% |
| Nonsyndromic Hearing Loss, Mixed     | DFNA5    | DOMINANT  | NM_004403.2    | 99.89% |
| Nonsyndromic Hearing Loss, Mixed     | DIAPH1   | DOMINANT  | NM_005219.4    | 96.64% |
| Nonsyndromic Hearing Loss, Mixed     | FOXI1    | DOMINANT  | NM_012188.4    | 98.39% |
| Nonsyndromic Hearing Loss, Mixed     | HGF      | DOMINANT  | NM_000601.4    | 99.95% |
| Nonsyndromic Hearing Loss, Mixed     | KCNJ10   | DOMINANT  | NM_002241.4    | 98.87% |
| Nonsyndromic Hearing Loss, Recessive | CDH23    | RECESSIVE | NM_022124.5    | 97.08% |
| Nonsyndromic Hearing Loss, Recessive | CLDN14   | RECESSIVE | NM_144492.2    | 96.37% |
| Nonsyndromic Hearing Loss, Recessive | DFNB31   | RECESSIVE | NM_015404.3    | 96.78% |
| Nonsyndromic Hearing Loss, Recessive | DFNB59   | RECESSIVE | NM_001042702.3 | 99.95% |
| Nonsyndromic Hearing Loss, Recessive | ESRRB    | RECESSIVE | NM_004452.3    | 98.10% |
| Nonsyndromic Hearing Loss, Recessive | GJB2     | RECESSIVE | NM_004004.5    | 97.20% |
| Nonsyndromic Hearing Loss, Recessive | GJB6     | RECESSIVE | NM_006783.4    | 99.83% |
| Nonsyndromic Hearing Loss, Recessive | GPSM2    | RECESSIVE | NM_013296.4    | 98.15% |
| Nonsyndromic Hearing Loss, Recessive | GRXCR1   | RECESSIVE | NM_001080476.2 | 99.99% |
| Nonsyndromic Hearing Loss, Recessive | LHFPL5   | RECESSIVE | NM_182548.3    | 94.21% |
| Nonsyndromic Hearing Loss, Recessive | LOXHD1   | RECESSIVE | NM_144612.6    | 99.30% |
| Nonsyndromic Hearing Loss, Recessive | LRTOMT   | RECESSIVE | NM_001145308.2 | 99.41% |
| Nonsyndromic Hearing Loss, Recessive | MARVELD2 | RECESSIVE | NM_001038603.2 | 99.86% |
| Nonsyndromic Hearing Loss, Recessive | MYO15A   | RECESSIVE | NM_016239.3    | 96.43% |



|   |         |           |             |        |
|---|---------|-----------|-------------|--------|
| Nonsyndromic Hearing Loss, Recessive        | MYO3A   | RECESSIVE | NM_017433.4 | 99.51% |
| Nonsyndromic Hearing Loss, Recessive        | MYO6    | RECESSIVE | NM_004999.3 | 99.22% |
| Nonsyndromic Hearing Loss, Recessive        | MYO7A   | RECESSIVE | NM_000260.3 | 98.70% |
| Nonsyndromic Hearing Loss, Recessive        | OTOF    | RECESSIVE | NM_194248.2 | 97.40% |
| Nonsyndromic Hearing Loss, Recessive        | PCDH15  | RECESSIVE | NM_033056.3 | 99.93% |
| Nonsyndromic Hearing Loss, Recessive        | RDX     | RECESSIVE | NM_002906.3 | 96.91% |
| Nonsyndromic Hearing Loss, Recessive        | SLC26A4 | RECESSIVE | NM_000441.1 | 98.71% |
| Nonsyndromic Hearing Loss, Recessive        | SLC26A5 | RECESSIVE | NM_198999.2 | 98.33% |
| Nonsyndromic Hearing Loss, Recessive        | TECTA   | RECESSIVE | NM_005422.2 | 98.28% |
| Nonsyndromic Hearing Loss, Recessive        | TMC1    | RECESSIVE | NM_138691.2 | 99.22% |
| Nonsyndromic Hearing Loss, Recessive        | TMIE    | RECESSIVE | NM_147196.2 | 98.19% |
| Nonsyndromic Hearing Loss, Recessive        | TMPRSS3 | RECESSIVE | NM_024022.2 | 99.81% |
| Nonsyndromic Hearing Loss, Recessive        | USH1C   | RECESSIVE | NM_005709.3 | 97.95% |
| Nonsyndromic Hearing Loss, X-Linked         | POU3F4  | X_LINKED  | NM_000307.3 | 88.38% |
| Nonsyndromic Hearing Loss, X-Linked         | PRPS1   | X_LINKED  | NM_002764.3 | 88.28% |
| Nonsyndromic Hearing Loss, X-Linked         | SMPX    | X_LINKED  | NM_014332.2 | 95.35% |
| Nonsyndromic Trigenocephaly                 | FGFR1   | DOMINANT  | NM_023110.2 | 98.79% |
| Noonan Syndrome                             | BRAF    | DOMINANT  | NM_004333.4 | 97.81% |
| Noonan Syndrome                             | KRAS    | DOMINANT  | NM_004985.3 | 98.29% |
| Noonan Syndrome                             | MAP2K1  | DOMINANT  | NM_002755.3 | 98.72% |
| Noonan Syndrome                             | NRAS    | DOMINANT  | NM_002524.4 | 97.99% |
| Noonan Syndrome                             | PTPN11  | DOMINANT  | NM_002834.3 | 98.03% |
| Noonan Syndrome                             | RAF1    | DOMINANT  | NM_002880.3 | 99.39% |
| Noonan Syndrome                             | SOS1    | DOMINANT  | NM_005633.3 | 99.48% |
| Noonan-Like Syndrome Disorder               | CBL     | DOMINANT  | NM_005188.3 | 99.04% |
| Noonan-Like Syndrome with Loose Anagen Hair | SHOC2   | DOMINANT  | NM_007373.3 | 97.64% |
| Norepinephrine Transporter Deficiency       | SLC6A2  | DOMINANT  | NM_001043.3 | 98.92% |
| Normokalemic Periodic Paralysis             | SCN4A   | DOMINANT  | NM_000334.4 | 97.03% |
| North American Indian Childhood Cirrhosis   | CIRH1A  | RECESSIVE | NM_032830.2 | 99.59% |

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| Obesity                                | MC4R     | DOMINANT  | NM_005912.2    | 99.98% |
| Obesity                                | PPARG    | DOMINANT  | NM_015869.4    | 99.99% |
| Occult Macular Dystrophy               | RP1L1    | DOMINANT  | NM_178857.5    | 97.29% |
| Oculocutaneous Albinism                | OCA2     | RECESSIVE | NM_000275.2    | 99.67% |
| Oculocutaneous Albinism                | SLC45A2  | RECESSIVE | NM_016180.3    | 98.35% |
| Oculocutaneous Albinism                | TYRP1    | RECESSIVE | NM_000550.2    | 99.81% |
| Oculodentodigital Dysplasia            | GJA1     | DOMINANT  | NM_000165.3    | 95.58% |
| Odontoonychodermal Dysplasia           | WNT10A   | RECESSIVE | NM_025216.2    | 95.67% |
| Oguchi Disease                         | SAG      | RECESSIVE | NM_000541.4    | 99.85% |
| Oligodontia-Colorectal Cancer Syndrome | AXIN2    | DOMINANT  | NM_004655.3    | 96.56% |
| Omenn Syndrome                         | DCLRE1C  | RECESSIVE | NM_001033855.1 | 97.51% |
| Omenn Syndrome                         | RAG1     | RECESSIVE | NM_000448.2    | 99.57% |
| Omenn Syndrome                         | RAG2     | RECESSIVE | NM_000536.3    | 98.79% |
| Omodysplasia                           | GPC6     | DOMINANT  | NM_005708.3    | 99.89% |
| Optic Atrophy, Dominant                | OPA3     | DOMINANT  | NM_025136.3    | 97.52% |
| Optic Atrophy, Recessive               | OPA1     | DOMINANT  | NM_015560.2    | 99.89% |
| Optic Atrophy, Recessive               | TMEM126A | RECESSIVE | NM_032273.3    | 99.99% |
| Ornithine Aminotransferase Deficiency  | OAT      | RECESSIVE | NM_000274.3    | 99.69% |
| Ornithine Transcarbamylase Deficiency  | OTC      | X_LINKED  | NM_000531.5    | 95.17% |
| Orofacial Cleft                        | BMP4     | DOMINANT  | NM_001202.3    | 98.31% |
| Orotic Aciduria                        | UMPS     | RECESSIVE | NM_000373.3    | 98.61% |
| Osteogenesis Imperfecta, Dominant      | COL1A1   | DOMINANT  | NM_000088.3    | 96.26% |
| Osteogenesis Imperfecta, Dominant      | COL1A2   | DOMINANT  | NM_000089.3    | 98.95% |
| Osteogenesis Imperfecta, Recessive     | CRTAP    | RECESSIVE | NM_006371.4    | 99.20% |
| Osteogenesis Imperfecta, Recessive     | FKBP10   | RECESSIVE | NM_021939.3    | 97.74% |
| Osteogenesis Imperfecta, Recessive     | LEPRE1   | RECESSIVE | NM_022356.3    | 99.60% |
| Osteogenesis Imperfecta, Recessive     | PPIB     | RECESSIVE | NM_000942.4    | 98.88% |
| Osteogenesis Imperfecta, Recessive     | SERPINF1 | RECESSIVE | NM_002615.5    | 99.56% |
| Osteogenesis Imperfecta, Recessive     | SERPINH1 | RECESSIVE | NM_001235.3    | 96.59% |

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|--|-----------|-----------|----------------|--------|
| Osteoglophonic Dysplasia   | FGFR1     | DOMINANT  | NM_023110.2    | 98.79% |
| Osteopetrosis  | CLCN7     | DOMINANT  | NM_001287.5    | 97.08% |
| Osteopetrosis  | OSTM1     | RECESSIVE | NM_014028.3    | 97.01% |
| Osteopetrosis  | TCIRG1    | RECESSIVE | NM_006019.3    | 95.51% |
| Osteopetrosis  | TNFRSF11A | DOMINANT  | NM_003839.2    | 96.20% |
| Osteopetrosis  | TNFSF11   | RECESSIVE | NM_003701.3    | 99.70% |
| Osteopetrosis with Renal Tubular Acidosis                                  | CA2       | RECESSIVE | NM_000067.2    | 95.07% |
| Otofaciocervical Syndrome  | EYA1      | DOMINANT  | NM_000503.4    | 98.57% |
| Otospondylomegaepiphyseal Dysplasia  | COL11A2   | DOMINANT  | NM_080680.2    | 99.38% |
| OTX2-Related Syndromic Microphthalmia                                      | OTX2      | DOMINANT  | NM_172337.2    | 99.73% |
| Ovarian Dysgenesis   | BMP15     | X_LINKED  | NM_005448.2    | 95.95% |
| Ovarian Dysgenesis   | FSHR      | RECESSIVE | NM_000145.3    | 98.20% |
| Ovarian Hyperstimulation Syndrome  | FSHR      | DOMINANT  | NM_000145.3    | 98.20% |
| Paget Disease of Bone  | SQSTM1    | RECESSIVE | NM_003900.4    | 97.28% |
| Paget Disease of Bone  | TNFRSF11A | DOMINANT  | NM_003839.2    | 96.20% |
| PALB2-Related Cancer Susceptibility  | PALB2     | DOMINANT  | NM_024675.3    | 99.95% |
| Pallister-Hall Syndrome  | GLI3      | DOMINANT  | NM_000168.5    | 98.64% |
| Palmoplantar Keratoderma, Mutilating, with Periorificial Keratotic Plaques | TRPV3     | DOMINANT  | NM_145068.3    | 99.40% |
| Pancreatic Cancer  | PALLD     | DOMINANT  | NM_001166108.1 | 99.67% |
| Pantothenate Kinase-Associated Neurodegeneration                           | PANK2     | RECESSIVE | NM_153638.2    | 97.85% |
| Papillary Renal Carcinoma  | MET       | DOMINANT  | NM_001127500.1 | 99.60% |
| Papillon-Lefevre Syndrome  | CTSC      | RECESSIVE | NM_001814.4    | 99.55% |
| Paraganglioma and Gastric Stromal Sarcoma                                  | SDHB      | DOMINANT  | NM_003000.2    | 99.74% |
| Paramyotonia Congenita of Von Eulenburg                                    | SCN4A     | DOMINANT  | NM_000334.4    | 97.03% |
| Parathyroid Carcinoma  | CDC73     | DOMINANT  | NM_024529.4    | 99.19% |
| Parkes Weber Syndrome  | RASA1     | DOMINANT  | NM_002890.2    | 97.65% |
| Parkinson Disease ,Recessive   | FBXO7     | RECESSIVE | NM_012179.3    | 97.36% |
| Parkinson Disease, Dominant  | HTRA2     | DOMINANT  | NM_013247.4    | 98.65% |

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|---|---------|-----------|-------------|--------|
| Parkinson Disease, Dominant                       | LRRK2   | DOMINANT  | NM_198578.3 | 99.67% |
| Parkinson Disease, Dominant                       | SNCA    | DOMINANT  | NM_000345.3 | 97.74% |
| Parkinson Disease, Dominant                       | VPS35   | DOMINANT  | NM_018206.4 | 97.74% |
| Parkinson Disease, Dominant/Recessive             | MAPT    | DOMINANT  | NM_005910.5 | 96.95% |
| Parkinson Disease, Dominant/Recessive             | NR4A2   | DOMINANT  | NM_006186.3 | 97.75% |
| Parkinson Disease, Dominant/Recessive             | SNCAIP  | DOMINANT  | NM_005460.2 | 99.26% |
| Parkinson Disease, Dominant/Recessive             | UCHL1   | DOMINANT  | NM_004181.4 | 99.21% |
| Parkinson Disease, Juvenile                       | PARK2   | DOMINANT  | NM_004562.2 | 98.57% |
| Parkinson Disease, Recessive                      | PARK7   | RECESSIVE | NM_007262.4 | 97.37% |
| Parkinson Disease, Recessive                      | PINK1   | RECESSIVE | NM_032409.2 | 94.52% |
| Paroxysmal Extreme Pain Disorder                  | SCN9A   | DOMINANT  | NM_002977.3 | 99.43% |
| Paroxysmal Familial Ventricular Fibrillation      | SCN5A   | DOMINANT  | NM_198056.2 | 98.54% |
| Partial Epilepsy with Auditory Features           | LGI1    | DOMINANT  | NM_005097.2 | 99.47% |
| Partial Isolated Growth Hormone Deficiency        | GHR     | DOMINANT  | NM_198407.2 | 95.92% |
| Patterned Dystrophy of Retinal Pigment Epithelium | PRPH2   | DOMINANT  | NM_000322.4 | 99.36% |
| PCWH Syndrome                                     | SOX10   | DOMINANT  | NM_006941.3 | 96.64% |
| Peeling Skin Syndrome                             | TGM5    | RECESSIVE | NM_201631.3 | 99.68% |
| Pendred Syndrome                                  | FOXI1   | RECESSIVE | NM_012188.4 | 98.39% |
| Pendred Syndrome                                  | KCNJ10  | RECESSIVE | NM_002241.4 | 98.87% |
| Pendred Syndrome                                  | SLC26A4 | RECESSIVE | NM_000441.1 | 98.71% |
| Periventricular Heterotopia                       | ARFGF2  | RECESSIVE | NM_006420.2 | 99.84% |
| Perlman Syndrome                                  | DIS3L2  | RECESSIVE | NM_152383.4 | 97.23% |
| Permanent Neonatal Diabetes Mellitus              | ABCC8   | DOMINANT  | NM_000352.3 | 98.00% |
| Permanent Neonatal Diabetes Mellitus              | GCK     | DOMINANT  | NM_000162.3 | 96.32% |
| Peroxisomal Bifunctional Enzyme Deficiency        | HSD17B4 | RECESSIVE | NM_000414.3 | 99.62% |
| Perrault Syndrome                                 | HSD17B4 | RECESSIVE | NM_000414.3 | 99.62% |
| Perry Syndrome                                    | DCTN1   | DOMINANT  | NM_004082.4 | 99.86% |
| Peters Anomaly                                    | CYP1B1  | DOMINANT  | NM_000104.3 | 98.08% |
| Peters Anomaly                                    | PAX6    | DOMINANT  | NM_000280.4 | 99.26% |

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| Peters Anomaly   | PITX2    | DOMINANT  | NM_153427.2    | 99.12% |
| Peters Plus Syndrome   | B3GALTL  | RECESSIVE | NM_194318.3    | 96.61% |
| Peutz-Jeghers Syndrome   | STK11    | DOMINANT  | NM_000455.4    | 88.22% |
| Pfeiffer Syndrome  | FGFR1    | DOMINANT  | NM_023110.2    | 98.79% |
| Pfeiffer Syndrome  | FGFR2    | DOMINANT  | NM_000141.4    | 97.52% |
| Phenylalanine Hydroxylase Deficiency   | PAH      | RECESSIVE | NM_000277.1    | 99.91% |
| Pheochromocytoma   | KIF1B    | DOMINANT  | NM_015074.3    | 98.68% |
| Pheochromocytoma   | RET      | DOMINANT  | NM_020975.4    | 98.25% |
| Pheochromocytoma   | TMEM127  | DOMINANT  | NM_017849.3    | 99.48% |
| Phosphoenolpyruvate Carboxykinase Deficiency                                       | PCK1     | RECESSIVE | NM_002591.3    | 98.74% |
| Phosphoglycerate Dehydrogenase Deficiency  | PHGDH    | RECESSIVE | NM_006623.3    | 99.83% |
| Phosphoribosylpyrophosphate Synthetase Superactivity                               | PRPS1    | X_LINKED  | NM_002764.3    | 88.28% |
| Phosphorylase Kinase Deficiency  | PHKB     | RECESSIVE | NM_000293.2    | 99.20% |
| Phosphorylase Kinase Deficiency  | PHKG2    | X_LINKED  | NM_000294.2    | 96.74% |
| Phosphoserine Aminotransferase Deficiency  | PSAT1    | RECESSIVE | NM_058179.2    | 99.64% |
| Phosphoserine Phosphatase Deficiency   | PSPH     | RECESSIVE | NM_004577.3    | 97.52% |
| Piebald Trait  | KIT      | DOMINANT  | NM_000222.2    | 99.98% |
| Piebald Trait  | SNAI2    | DOMINANT  | NM_003068.4    | 97.30% |
| Pierson Syndrome   | LAMB2    | RECESSIVE | NM_002292.3    | 97.67% |
| Pigmented Paravenous Chorioretinal Atrophy   | CRB1     | DOMINANT  | NM_201253.2    | 99.98% |
| Pineal Hyperplasia, Insulin-Resistant Diabetes Mellitus, and Somatic Abnormalities | INSR     | DOMINANT  | NM_000208.2    | 97.67% |
| Pitt-Hopkins Syndrome  | TCF4     | DOMINANT  | NM_001083962.1 | 95.46% |
| Pitt-Hopkins-Like Syndrome   | CNTNAP2  | RECESSIVE | NM_014141.5    | 99.23% |
| Pitt-Hopkins-Like Syndrome   | NRXN1    | RECESSIVE | NM_001135659.1 | 98.62% |
| Pituitary Dwarfism II  | GHR      | RECESSIVE | NM_000163.4    | 98.56% |
| PITX2-Related Eye Abnormalities  | PITX2    | DOMINANT  | NM_153427.2    | 99.12% |
| Plasminogen Activator Inhibitor-1 Deficiency                                       | SERPINE1 | DOMINANT  | NM_000602.3    | 97.56% |
| Platelet Glycoprotein IV Deficiency  | CD36     | RECESSIVE | NM_001001547.2 | 99.94% |

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| Pleuropulmonary Blastoma   | DICER1 | DOMINANT  | NM_177438.2 | 98.88% |
| Pol III-Related Leukodystrophy   | POLR3A | RECESSIVE | NM_007055.3 | 99.59% |
| Pol III-Related Leukodystrophy   | POLR3B | RECESSIVE | NM_018082.5 | 99.42% |
| POLG-Related Spectrum Disorders  | POLG   | RECESSIVE | NM_002693.2 | 99.36% |
| Polycystic Kidney Disease, Autosomal Dominant                                | PKD2   | DOMINANT  | NM_000297.3 | 95.67% |
| Polycystic Kidney Disease, Autosomal Recessive                               | PKHD1  | RECESSIVE | NM_138694.3 | 99.59% |
| Polycystic Lipomembranous Osteodysplasia with Sclerosing Leukoencephalopathy | TREM2  | RECESSIVE | NM_018965.2 | 98.73% |
| Polycystic Lipomembranous Osteodysplasia with Sclerosing Leukoencephalopathy | TYROBP | RECESSIVE | NM_003332.3 | 99.41% |
| Polycystic Liver Disease   | PRKCSH | DOMINANT  | NM_002743.2 | 97.12% |
| Polycystic Liver Disease   | SEC63  | DOMINANT  | NM_007214.4 | 97.49% |
| Polydactyly  | GLI3   | DOMINANT  | NM_000168.5 | 98.64% |
| Polymicrogyria   | GPR56  | RECESSIVE | NM_005682.5 | 98.00% |
| Pontocerebellar Hypoplasia   | RARS2  | RECESSIVE | NM_020320.3 | 99.04% |
| Pontocerebellar Hypoplasia   | TSEN2  | RECESSIVE | NM_025265.3 | 99.94% |
| Pontocerebellar Hypoplasia   | TSEN34 | RECESSIVE | NM_024075.3 | 98.60% |
| Pontocerebellar Hypoplasia   | TSEN54 | RECESSIVE | NM_207346.2 | 95.27% |
| Pontocerebellar Hypoplasia   | VRK1   | RECESSIVE | NM_003384.2 | 98.56% |
| Popliteal Pterygium Syndrome   | IRF6   | DOMINANT  | NM_006147.3 | 99.06% |
| Porencephaly   | COL4A1 | DOMINANT  | NM_001845.4 | 99.41% |
| Porencephaly   | COL4A2 | DOMINANT  | NM_001846.2 | 98.18% |
| Porphyria Cutanea Tarda  | UROD   | DOMINANT  | NM_000374.4 | 99.94% |
| Postaxial Acrofacial Dysostosis  | DHODH  | RECESSIVE | NM_001361.4 | 99.51% |
| Posterior Column Ataxia with Retinitis Pigmentosa                            | FLVCR1 | RECESSIVE | NM_014053.3 | 97.09% |
| Posterior Polar Cataract   | CRYAB  | DOMINANT  | NM_001885.1 | 99.76% |
| Posterior Polymorphous Corneal Dystrophy                                     | VXS1   | DOMINANT  | NM_014588.5 | 97.29% |
| Potassium-Aggravated Myotonia  | SCN4A  | DOMINANT  | NM_000334.4 | 97.03% |
| Prader-Willi-Like Syndrome   | SIM1   | DOMINANT  | NM_005068.2 | 99.52% |

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| Premature Ovarian Failure              | FIGLA    | DOMINANT  | NM_001004311.3 | 98.80% |
| Premature Ovarian Failure              | NOBOX    | DOMINANT  | NM_001080413.3 | 99.70% |
| Primary Ciliary Dyskinesia             | CCDC103  | RECESSIVE | NM_213607.2    | 99.77% |
| Primary Ciliary Dyskinesia             | CCDC39   | RECESSIVE | NM_181426.1    | 99.88% |
| Primary Ciliary Dyskinesia             | CCDC40   | RECESSIVE | NM_017950.3    | 98.95% |
| Primary Ciliary Dyskinesia             | DNAAF1   | RECESSIVE | NM_178452.4    | 98.00% |
| Primary Ciliary Dyskinesia             | DNAAF2   | RECESSIVE | NM_018139.2    | 99.04% |
| Primary Ciliary Dyskinesia             | DNAAF3   | RECESSIVE | NM_001256714.1 | 97.46% |
| Primary Ciliary Dyskinesia             | DNAH11   | RECESSIVE | NM_003777.3    | 99.69% |
| Primary Ciliary Dyskinesia             | DNAH5    | RECESSIVE | NM_001369.2    | 99.64% |
| Primary Ciliary Dyskinesia             | DNAI1    | RECESSIVE | NM_012144.2    | 99.59% |
| Primary Ciliary Dyskinesia             | DNAI2    | RECESSIVE | NM_023036.4    | 99.66% |
| Primary Ciliary Dyskinesia             | DNAL1    | RECESSIVE | NM_031427.3    | 98.71% |
| Primary Ciliary Dyskinesia             | RSPH4A   | RECESSIVE | NM_001010892.2 | 99.95% |
| Primary Coenzyme Q10 Deficiency        | COQ2     | RECESSIVE | NM_015697.7    | 95.98% |
| Primary Coenzyme Q10 Deficiency        | COQ9     | RECESSIVE | NM_020312.3    | 97.91% |
| Primary Coenzyme Q10 Deficiency        | PDSS1    | RECESSIVE | NM_014317.3    | 98.93% |
| Primary Coenzyme Q10 Deficiency        | PDSS2    | RECESSIVE | NM_020381.3    | 99.91% |
| Primary Congenital Glaucoma            | CYP1B1   | RECESSIVE | NM_000104.3    | 98.08% |
| Primary Congenital Glaucoma            | LTBP2    | RECESSIVE | NM_000428.2    | 99.04% |
| Primary Hyperoxaluria                  | AGXT     | RECESSIVE | NM_000030.2    | 97.95% |
| Primary Hyperoxaluria                  | GRHPR    | RECESSIVE | NM_012203.1    | 96.59% |
| Primary Hyperoxaluria                  | HOGA1    | RECESSIVE | NM_138413.3    | 98.33% |
| Primary Hypertrophic Osteoarthropathy  | HPGD     | RECESSIVE | NM_000860.5    | 99.68% |
| Primary Hypomagnesemia                 | CLDN16   | RECESSIVE | NM_006580.3    | 99.50% |
| Primary Lymphedema with Myelodysplasia | GATA2    | DOMINANT  | NM_032638.4    | 97.67% |
| Primary Microcephaly, Recessive        | ASPM     | RECESSIVE | NM_018136.4    | 99.32% |
| Primary Microcephaly, Recessive        | CDK5RAP2 | RECESSIVE | NM_018249.4    | 99.64% |
| Primary Microcephaly, Recessive        | CENPJ    | RECESSIVE | NM_018451.4    | 99.50% |

|   |          |           |                |        |
|---|----------|-----------|----------------|--------|
| Primary Microcephaly, Recessive                                       | CEP152   | RECESSIVE | NM_014985.3    | 99.51% |
| Primary Microcephaly, Recessive                                       | MCPH1    | RECESSIVE | NM_024596.3    | 99.74% |
| Primary Microcephaly, Recessive                                       | STIL     | RECESSIVE | NM_003035.2    | 99.35% |
| Primary Microcephaly, Recessive                                       | WDR62    | RECESSIVE | NM_001083961.1 | 98.54% |
| Primary Open Angle Glaucoma   | MYOC     | DOMINANT  | NM_000261.1    | 99.85% |
| Primary Open Angle Glaucoma   | OPTN     | DOMINANT  | NM_021980.4    | 99.01% |
| Primary Open Angle Glaucoma   | WDR36    | DOMINANT  | NM_139281.2    | 99.26% |
| Progeroid Laminopathies   | LMNA     | DOMINANT  | NM_005572.3    | 96.33% |
| Progressive External Ophthalmoplegia with Mitochondrial DNA Deletions | C10orf2  | DOMINANT  | NM_021830.4    | 98.46% |
| Progressive External Ophthalmoplegia with Mitochondrial DNA Deletions | POLG2    | DOMINANT  | NM_007215.3    | 99.53% |
| Progressive External Ophthalmoplegia with Mitochondrial DNA Deletions | RRM2B    | DOMINANT  | NM_015713.4    | 97.04% |
| Progressive External Ophthalmoplegia with Mitochondrial DNA Deletions | SLC25A4  | DOMINANT  | NM_001151.3    | 99.43% |
| Progressive Familial Heart Block                                      | SCN5A    | DOMINANT  | NM_198056.2    | 98.54% |
| Progressive Familial Heart Block                                      | TRPM4    | DOMINANT  | NM_017636.3    | 97.92% |
| Progressive Familial Intrahepatic Cholestasis                         | ABCB4    | DOMINANT  | NM_000443.3    | 99.79% |
| Progressive Myoclonic Epilepsy  | GOSR2    | RECESSIVE | NM_004287.3    | 99.82% |
| Progressive Myoclonic Epilepsy  | KCTD7    | RECESSIVE | NM_153033.4    | 99.13% |
| Progressive Myoclonic Epilepsy  | PRICKLE2 | DOMINANT  | NM_198859.3    | 99.37% |
| Progressive Myoclonus Epilepsy with Ataxia                            | PRICKLE1 | RECESSIVE | NM_153026.2    | 99.11% |
| Progressive Myoclonus Epilepsy, Lafora type                           | NHLRC1   | RECESSIVE | NM_198586.2    | 98.06% |
| Progressive Pseudorheumatoid Arthropathy of Childhood                 | WISP3    | RECESSIVE | NM_003880.3    | 99.98% |
| Prolidase Deficiency  | PEPD     | RECESSIVE | NM_000285.3    | 98.19% |
| Proliferative Vasculopathy And Hydranencephaly-Hydrocephaly Syndrome  | FLVCR2   | RECESSIVE | NM_017791.2    | 98.91% |
| Proopiomelanocortin Deficiency  | POMC     | RECESSIVE | NM_001035256.1 | 98.78% |
| Propionic Acidemia  | PCCA     | RECESSIVE | NM_000282.3    | 99.35% |



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| Propionic Acidemia   | PCCB     | RECESSIVE | NM_000532.4    | 99.74% |
| Proprotein Convertase-1 Deficiency                         | PCSK1    | RECESSIVE | NM_000439.4    | 99.89% |
| Protein C Deficiency                                       | PROC     | DOMINANT  | NM_000312.3    | 98.77% |
| Protein S Deficiency                                       | PROS1    | DOMINANT  | NM_000313.3    | 95.46% |
| Prothrombin Deficiency                                     | F2       | RECESSIVE | NM_000506.3    | 99.50% |
| Prothrombin-Related Thrombophilia                          | F2       | DOMINANT  | NM_000506.3    | 99.50% |
| Proximal Renal Tubular Acidosis with Ocular Abnormalities  | SLC4A4   | RECESSIVE | NM_003759.3    | 99.83% |
| Pseudoachondroplasia                                       | COMP     | DOMINANT  | NM_000095.2    | 95.67% |
| Pseudohypoaldosteronism, Type I, Dominant                  | CUL3     | DOMINANT  | NM_003590.4    | 96.27% |
| Pseudohypoaldosteronism, Type I, Dominant                  | KLHL3    | DOMINANT  | NM_017415.2    | 98.37% |
| Pseudohypoaldosteronism, Type I, Dominant                  | NR3C2    | DOMINANT  | NM_000901.4    | 98.94% |
| Pseudohypoaldosteronism, Type I, Dominant                  | STX16    | DOMINANT  | NM_001001433.2 | 99.21% |
| Pseudohypoaldosteronism, Type I, Recessive                 | SCNN1A   | RECESSIVE | NM_001038.5    | 97.55% |
| Pseudohypoaldosteronism, Type I, Recessive                 | SCNN1B   | DOMINANT  | NM_000336.2    | 98.80% |
| Pseudohypoaldosteronism, Type II                           | WNK1     | DOMINANT  | NM_018979.3    | 98.81% |
| Pseudohypoaldosteronism, Type II                           | WNK4     | DOMINANT  | NM_032387.4    | 98.04% |
| Pseudoinflammatory Fundus Dystrophy                        | TIMP3    | RECESSIVE | NM_000362.4    | 97.77% |
| Pseudoneonatal Adrenoleukodystrophy                        | ACOX1    | RECESSIVE | NM_004035.6    | 98.76% |
| PTEN Hamartoma Tumor Syndrome                              | PTEN     | DOMINANT  | NM_000314.4    | 91.64% |
| Pulmonary Surfactant Metabolism Dysfunction, Dominant      | SFTPC    | DOMINANT  | NM_003018.3    | 98.49% |
| Pulmonary Surfactant Metabolism Dysfunction, Recessive     | ABCA3    | RECESSIVE | NM_001089.2    | 96.99% |
| Pulmonary Surfactant Metabolism Dysfunction, Recessive     | SFTPB    | RECESSIVE | NM_198843.2    | 99.30% |
| Purine Nucleoside Phosphorylase Deficiency                 | PNP      | RECESSIVE | NM_000270.3    | 99.77% |
| Pycnodysostosis  | CTSK     | RECESSIVE | NM_000396.3    | 99.97% |
| Pyogenic Sterile Arthritis, Pyoderma Gangrenosum, and Acne | PSTPIP1  | DOMINANT  | NM_003978.3    | 98.87% |
| Pyridoxamine 5-Prime-Phosphate Oxidase Deficiency          | PNPO     | RECESSIVE | NM_018129.3    | 98.35% |
| Pyridoxine-Dependent Epilepsy                              | ALDH7A1  | RECESSIVE | NM_001182.4    | 97.97% |
| Pyridoxine-Refractory Sideroblastic Anemia                 | SLC25A38 | RECESSIVE | NM_017875.2    | 99.87% |

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| Pyruvate Carboxylase Deficiency               | PC       | RECESSIVE | NM_000920.3 | 98.59% |
| Pyruvate Dehydrogenase Complex Deficiency     | DLAT     | RECESSIVE | NM_001931.4 | 98.17% |
| Pyruvate Dehydrogenase Complex Deficiency     | DLD      | RECESSIVE | NM_000108.3 | 99.95% |
| Pyruvate Dehydrogenase Complex Deficiency     | PDHB     | RECESSIVE | NM_000925.3 | 98.96% |
| Pyruvate Dehydrogenase Complex Deficiency     | PDHX     | RECESSIVE | NM_003477.2 | 97.24% |
| Pyruvate Dehydrogenase Phosphatase Deficiency | PDP1     | RECESSIVE | NM_018444.3 | 98.87% |
| Pyruvate Kinase Deficiency                    | PKLR     | RECESSIVE | NM_000298.5 | 99.53% |
| Quebec Platelet Disorder                      | PLAU     | DOMINANT  | NM_002658.3 | 98.56% |
| Rapid-Onset Dystonia-Parkinsonism             | ATP1A3   | DOMINANT  | NM_152296.4 | 97.26% |
| Recurrent Hydatidiform Mole                   | NLRP7    | RECESSIVE | NM_206828.3 | 98.15% |
| Refsum Disease                                | PEX7     | RECESSIVE | NM_000288.3 | 99.70% |
| Refsum Disease                                | PHYH     | RECESSIVE | NM_006214.3 | 99.94% |
| Renal Adysplasia                              | RET      | DOMINANT  | NM_020975.4 | 98.25% |
| Renal Adysplasia                              | UPK3A    | DOMINANT  | NM_006953.3 | 99.60% |
| Renal Cysts and Diabetes Syndrome             | HNF1B    | DOMINANT  | NM_000458.2 | 98.62% |
| Renal Glucosuria                              | SLC5A2   | RECESSIVE | NM_003041.3 | 97.88% |
| Renal Hypomagnesemia, Dominant                | CNNM2    | DOMINANT  | NM_017649.4 | 96.70% |
| Renal Hypomagnesemia, Dominant                | FXD2     | DOMINANT  | NM_001680.4 | 98.81% |
| Renal Hypomagnesemia, Recessive               | CLDN19   | RECESSIVE | NM_148960.2 | 98.04% |
| Renal Hypomagnesemia, Recessive               | EGF      | RECESSIVE | NM_001963.4 | 99.78% |
| Renal Hypouricemia                            | SLC22A12 | RECESSIVE | NM_144585.2 | 97.52% |
| Renal Hypouricemia                            | SLC2A9   | RECESSIVE | NM_020041.2 | 99.76% |
| Renal Tubular Dysgenesis                      | ACE      | RECESSIVE | NM_000789.3 | 97.17% |
| Renal Tubular Dysgenesis                      | AGT      | RECESSIVE | NM_000029.3 | 99.37% |
| Renal Tubular Dysgenesis                      | AGTR1    | RECESSIVE | NM_031850.3 | 99.73% |
| Renal Tubular Dysgenesis                      | REN      | RECESSIVE | NM_000537.3 | 99.84% |
| Renal-Hepatic-Pancreatic Dysplasia            | NPHP3    | RECESSIVE | NM_153240.4 | 96.76% |
| Retinal Cone Dystrophy                        | CACNA2D4 | RECESSIVE | NM_172364.4 | 98.75% |
| Retinal Cone Dystrophy                        | PDE6H    | DOMINANT  | NM_006205.2 | 99.98% |

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| Retinal Degeneration                     | C1QTNF5  | DOMINANT  | NM_015645.3    | 98.05% |
| Retinal Dystrophy                        | LRAT     | RECESSIVE | NM_004744.3    | 98.57% |
| Retinal Dystrophy                        | OTX2     | DOMINANT  | NM_172337.2    | 99.73% |
| Retinal Macular Dystrophy                | PROM1    | DOMINANT  | NM_006017.2    | 99.87% |
| Retinitis Pigmentosa, Dominant           | ABCA4    | DOMINANT  | NM_000350.2    | 99.79% |
| Retinitis Pigmentosa, Dominant           | AIPL1    | DOMINANT  | NM_014336.3    | 98.86% |
| Retinitis Pigmentosa, Dominant           | CLRN1    | DOMINANT  | NM_174878.2    | 99.54% |
| Retinitis Pigmentosa, Dominant           | CNGA1    | DOMINANT  | NM_000087.3    | 99.80% |
| Retinitis Pigmentosa, Dominant           | CNGB1    | DOMINANT  | NM_001297.4    | 98.93% |
| Retinitis Pigmentosa, Dominant           | CRX      | DOMINANT  | NM_000554.4    | 96.57% |
| Retinitis Pigmentosa, Dominant           | GUCA1B   | DOMINANT  | NM_002098.5    | 98.92% |
| Retinitis Pigmentosa, Dominant           | IMPDH1   | DOMINANT  | NM_000883.3    | 96.28% |
| Retinitis Pigmentosa, Dominant           | KLHL7    | DOMINANT  | NM_001031710.2 | 99.86% |
| Retinitis Pigmentosa, Dominant           | NRL      | DOMINANT  | NM_006177.3    | 99.13% |
| Retinitis Pigmentosa, Dominant           | PRPF3    | DOMINANT  | NM_004698.2    | 98.97% |
| Retinitis Pigmentosa, Dominant           | PRPF31   | DOMINANT  | NM_015629.3    | 97.25% |
| Retinitis Pigmentosa, Dominant           | PRPF6    | DOMINANT  | NM_012469.3    | 99.48% |
| Retinitis Pigmentosa, Dominant           | PRPF8    | DOMINANT  | NM_006445.3    | 99.46% |
| Retinitis Pigmentosa, Dominant           | PRPH2    | DOMINANT  | NM_000322.4    | 99.36% |
| Retinitis Pigmentosa, Dominant           | ROM1     | DOMINANT  | NM_000327.3    | 96.13% |
| Retinitis Pigmentosa, Dominant           | RP1      | DOMINANT  | NM_006269.1    | 99.69% |
| Retinitis Pigmentosa, Dominant           | SNRNP200 | DOMINANT  | NM_014014.4    | 99.30% |
| Retinitis Pigmentosa, Dominant           | TOPORS   | DOMINANT  | NM_005802.4    | 99.19% |
| Retinitis Pigmentosa, Dominant           | ZNF513   | DOMINANT  | NM_144631.5    | 95.17% |
| Retinitis Pigmentosa, Dominant/Recessive | RHO      | DOMINANT  | NM_000539.3    | 99.45% |
| Retinitis Pigmentosa, Recessive          | AIPL1    | RECESSIVE | NM_014336.3    | 98.86% |
| Retinitis Pigmentosa, Recessive          | ARL6     | RECESSIVE | NM_177976.1    | 99.79% |
| Retinitis Pigmentosa, Recessive          | BEST1    | RECESSIVE | NM_004183.3    | 99.21% |
| Retinitis Pigmentosa, Recessive          | C2orf71  | RECESSIVE | NM_001029883.2 | 98.48% |

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| Retinitis Pigmentosa, Recessive | C8orf37 | RECESSIVE | NM_177965.3    | 98.57% |
| Retinitis Pigmentosa, Recessive | CERKL   | RECESSIVE | NM_201548.4    | 99.89% |
| Retinitis Pigmentosa, Recessive | CRB1    | DOMINANT  | NM_201253.2    | 99.98% |
| Retinitis Pigmentosa, Recessive | DHDDS   | RECESSIVE | NM_024887.3    | 98.08% |
| Retinitis Pigmentosa, Recessive | EYS     | RECESSIVE | NM_001142800.1 | 99.94% |
| Retinitis Pigmentosa, Recessive | FAM161A | RECESSIVE | NM_032180.2    | 98.75% |
| Retinitis Pigmentosa, Recessive | IDH3B   | RECESSIVE | NM_006899.3    | 99.44% |
| Retinitis Pigmentosa, Recessive | IMPG2   | RECESSIVE | NM_016247.3    | 98.78% |
| Retinitis Pigmentosa, Recessive | LRAT    | RECESSIVE | NM_004744.3    | 98.57% |
| Retinitis Pigmentosa, Recessive | MAK     | RECESSIVE | NM_001242957.1 | 98.36% |
| Retinitis Pigmentosa, Recessive | MERTK   | RECESSIVE | NM_006343.2    | 99.67% |
| Retinitis Pigmentosa, Recessive | NR2E3   | RECESSIVE | NM_014249.2    | 98.63% |
| Retinitis Pigmentosa, Recessive | PDE6A   | RECESSIVE | NM_000440.2    | 98.76% |
| Retinitis Pigmentosa, Recessive | PDE6B   | RECESSIVE | NM_000283.3    | 97.01% |
| Retinitis Pigmentosa, Recessive | PDE6G   | RECESSIVE | NM_002602.3    | 99.18% |
| Retinitis Pigmentosa, Recessive | PRCD    | RECESSIVE | NM_001077620.2 | 98.33% |
| Retinitis Pigmentosa, Recessive | PROM1   | RECESSIVE | NM_006017.2    | 99.87% |
| Retinitis Pigmentosa, Recessive | RBP3    | RECESSIVE | NM_002900.2    | 97.14% |
| Retinitis Pigmentosa, Recessive | RDH12   | RECESSIVE | NM_152443.2    | 99.96% |
| Retinitis Pigmentosa, Recessive | RGR     | RECESSIVE | NM_001012720.1 | 99.51% |
| Retinitis Pigmentosa, Recessive | RLBP1   | DOMINANT  | NM_000326.4    | 97.56% |
| Retinitis Pigmentosa, Recessive | RPE65   | RECESSIVE | NM_000329.2    | 99.90% |
| Retinitis Pigmentosa, Recessive | SAG     | RECESSIVE | NM_000541.4    | 99.85% |
| Retinitis Pigmentosa, Recessive | SEMA4A  | RECESSIVE | NM_022367.3    | 99.00% |
| Retinitis Pigmentosa, Recessive | SPATA7  | RECESSIVE | NM_018418.4    | 99.91% |
| Retinitis Pigmentosa, Recessive | TTC8    | RECESSIVE | NM_198309.2    | 99.65% |
| Retinitis Pigmentosa, Recessive | TULP1   | RECESSIVE | NM_003322.3    | 98.64% |
| Retinitis Pigmentosa, Recessive | USH2A   | RECESSIVE | NM_007123.5    | 99.98% |
| Retinitis Pigmentosa, X-Linked  | CA4     | X_LINKED  | NM_000717.3    | 99.36% |

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|---|---------|-----------|----------------|---------|
| Retinitis Pigmentosa, X-Linked          | RP2     | X_LINKED  | NM_006915.2    | 89.45%  |
| Retinoblastoma                          | RB1     | DOMINANT  | NM_000321.2    | 99.08%  |
| Revesz Syndrome                         | TINF2   | DOMINANT  | NM_001099274.1 | 99.77%  |
| Rhabdoid Tumor Predisposition Syndrome  | SMARCB1 | DOMINANT  | NM_003073.3    | 95.58%  |
| Rhizomelic Chondrodysplasia Punctata    | AGPS    | RECESSIVE | NM_003659.3    | 97.98%  |
| Rhizomelic Chondrodysplasia Punctata    | GNPAT   | RECESSIVE | NM_014236.3    | 99.82%  |
| Rhizomelic Chondrodysplasia Punctata    | PEX7    | RECESSIVE | NM_000288.3    | 99.70%  |
| Ribose 5-Phosphate Isomerase Deficiency | RPIA    | DOMINANT  | NM_144563.2    | 99.31%  |
| Ring Dermoid of Cornea                  | PITX2   | DOMINANT  | NM_153427.2    | 99.12%  |
| Roberts Syndrome                        | ESCO2   | RECESSIVE | NM_001017420.2 | 97.69%  |
| Robinow Syndrome                        | ROR2    | DOMINANT  | NM_004560.3    | 98.00%  |
| Robinow Syndrome                        | WNT5A   | DOMINANT  | NM_003392.4    | 96.82%  |
| Romano-Ward Syndrome                    | AKAP9   | DOMINANT  | NM_005751.4    | 99.71%  |
| Romano-Ward Syndrome                    | CAV3    | DOMINANT  | NM_033337.2    | 99.33%  |
| Romano-Ward Syndrome                    | KCNE1   | DOMINANT  | NM_000219.3    | 99.96%  |
| Romano-Ward Syndrome                    | KCNE2   | DOMINANT  | NM_172201.1    | 100.00% |
| Romano-Ward Syndrome                    | KCNJ5   | DOMINANT  | NM_000890.3    | 95.90%  |
| Romano-Ward Syndrome                    | KCNQ1   | DOMINANT  | NM_000218.2    | 92.10%  |
| Romano-Ward Syndrome                    | SCN4B   | DOMINANT  | NM_174934.3    | 98.40%  |
| Romano-Ward Syndrome                    | SCN5A   | DOMINANT  | NM_198056.2    | 98.54%  |
| Romano-Ward Syndrome                    | SNTA1   | DOMINANT  | NM_003098.2    | 89.35%  |
| Rotor Syndrome                          | SLCO1B1 | RECESSIVE | NM_006446.4    | 98.23%  |
| Rotor Syndrome                          | SLCO1B3 | RECESSIVE | NM_019844.3    | 99.17%  |
| Roussy-Levy Syndrome                    | MPZ     | DOMINANT  | NM_000530.6    | 98.87%  |
| Rubinstein-Taybi Syndrome               | EP300   | DOMINANT  | NM_001429.3    | 97.56%  |
| Saethre-Chotzen Syndrome                | FGFR2   | DOMINANT  | NM_000141.4    | 97.52%  |
| Salih Myopathy                          | TTN     | RECESSIVE | NM_133378.4    | 99.55%  |
| SALL4-Related Spectrum Disorders        | SALL4   | DOMINANT  | NM_020436.3    | 99.42%  |
| Salla Disease                           | SLC17A5 | RECESSIVE | NM_012434.4    | 98.00%  |

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| Sandhoff Disease   | HEXB     | RECESSIVE | NM_000521.3    | 96.82% |
| SCAD Deficiency  | ACADS    | RECESSIVE | NM_000017.2    | 98.96% |
| Scapuloperoneal Myopathy   | MYH7     | DOMINANT  | NM_000257.2    | 99.12% |
| Scapuloperoneal Spinal Muscular Atrophy  | TRPV4    | DOMINANT  | NM_021625.4    | 97.17% |
| Schimke Immunoosseous Dysplasia  | SMARCAL1 | RECESSIVE | NM_014140.3    | 99.41% |
| Schindler Disease  | NAGA     | RECESSIVE | NM_000262.2    | 99.76% |
| Schinzel-Giedion Midface Retraction Syndrome   | SETBP1   | DOMINANT  | NM_015559.2    | 97.43% |
| Schnyder Crystalline Corneal Dystrophy   | UBIAD1   | DOMINANT  | NM_013319.2    | 98.34% |
| Schopf-Schulz-Passarge Syndrome  | WNT10A   | RECESSIVE | NM_025216.2    | 95.67% |
| Schwannomatosis  | SMARCB1  | DOMINANT  | NM_003073.3    | 95.58% |
| Schwartz-Jampel Syndrome   | HSPG2    | RECESSIVE | NM_005529.5    | 96.57% |
| Sclerosing Bone Dysplasias   | SOST     | RECESSIVE | NM_025237.2    | 98.71% |
| Sebastian Syndrome   | MYH9     | DOMINANT  | NM_002473.4    | 99.28% |
| Seckel Syndrome  | ATR      | RECESSIVE | NM_001184.3    | 99.44% |
| Seckel Syndrome  | CENPJ    | RECESSIVE | NM_018451.4    | 99.50% |
| Seckel Syndrome  | CEP152   | RECESSIVE | NM_014985.3    | 99.51% |
| Seckel Syndrome  | RBBP8    | RECESSIVE | NM_002894.2    | 99.22% |
| Seizure Disorders  | SCN1A    | DOMINANT  | NM_001165963.1 | 99.76% |
| Seizures, Sensorineural Deafness, Ataxia, Mental Retardation, and Electrolyte Imbalance Syndrome | KCNJ10   | RECESSIVE | NM_002241.4    | 98.87% |
| Selective Tooth Agenesis   | PAX9     | DOMINANT  | NM_006194.3    | 98.61% |
| Selective Tooth Agenesis   | WNT10A   | DOMINANT  | NM_025216.2    | 95.67% |
| Sengers Syndrome   | AGK      | RECESSIVE | NM_018238.3    | 99.36% |
| Senior-Loken Syndrome  | CEP290   | RECESSIVE | NM_025114.3    | 99.36% |
| Senior-Loken Syndrome  | IQCB1    | RECESSIVE | NM_001023570.2 | 99.67% |
| Senior-Loken Syndrome  | NPHP1    | RECESSIVE | NM_000272.3    | 99.47% |
| Senior-Loken Syndrome  | NPHP4    | RECESSIVE | NM_015102.3    | 97.44% |
| Senior-Loken Syndrome  | SDCCAG8  | RECESSIVE | NM_006642.3    | 98.99% |
| Sensory Neuropathy with Spastic Paraplegia   | CCT5     | RECESSIVE | NM_012073.3    | 99.90% |

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| Septo-optic Dysplasia   | HESX1   | RECESSIVE | NM_003865.2    | 99.85% |
| Severe Combined Immune Deficiency                                       | CD3D    | RECESSIVE | NM_000732.4    | 99.88% |
| Severe Combined Immune Deficiency                                       | CD3E    | RECESSIVE | NM_000733.3    | 99.58% |
| Severe Combined Immune Deficiency                                       | IL7R    | RECESSIVE | NM_002185.3    | 99.99% |
| Severe Combined Immune Deficiency                                       | JAK3    | RECESSIVE | NM_000215.3    | 95.34% |
| Severe Combined Immune Deficiency                                       | RAG1    | RECESSIVE | NM_000448.2    | 99.57% |
| Severe Combined Immune Deficiency                                       | RAG2    | RECESSIVE | NM_000536.3    | 98.79% |
| Severe Combined Immunodeficiency  | IL2RG   | RECESSIVE | NM_000206.2    | 95.44% |
| Severe Combined Immunodeficiency  | ZAP70   | RECESSIVE | NM_001079.3    | 97.01% |
| Severe Combined Immunodeficiency with Sensitivity to Ionizing Radiation | LIG4    | RECESSIVE | NM_002312.3    | 99.86% |
| Severe Congenital Neutropenia   | G6PC3   | DOMINANT  | NM_138387.3    | 98.06% |
| Severe Congenital Neutropenia   | GFI1    | DOMINANT  | NM_005263.3    | 95.47% |
| Severe Congenital Neutropenia   | HAX1    | DOMINANT  | NM_006118.3    | 99.95% |
| Short QT Syndrome   | KCNJ2   | DOMINANT  | NM_000891.2    | 98.32% |
| Short QT Syndrome   | KCNQ1   | DOMINANT  | NM_000218.2    | 92.10% |
| Short Rib Polydactyly Syndrome  | DYNC2H1 | RECESSIVE | NM_001080463.1 | 99.44% |
| Short Rib Polydactyly Syndrome  | NEK1    | RECESSIVE | NM_012224.2    | 99.45% |
| Short Rib Polydactyly Syndrome  | WDR35   | RECESSIVE | NM_001006657.1 | 99.96% |
| Sialuria  | GNE     | DOMINANT  | NM_005476.5    | 95.71% |
| Sick Sinus Syndrome   | SCN5A   | DOMINANT  | NM_198056.2    | 98.54% |
| Sickle Cell Disease   | HBB     | RECESSIVE | NM_000518.4    | 99.96% |
| Sideroblastic Anemia and Ataxia   | ABCB7   | X_LINKED  | NM_004299.3    | 96.52% |
| Sitosterolemia  | ABCG5   | RECESSIVE | NM_022436.2    | 99.52% |
| Sitosterolemia  | ABCG8   | RECESSIVE | NM_022437.2    | 99.82% |
| Sjogren-Larsson Syndrome  | ALDH3A2 | RECESSIVE | NM_000382.2    | 99.85% |
| Skeletal Dysplasia  | CHST3   | RECESSIVE | NM_004273.4    | 98.22% |
| Skin Fragility-Woolly Hair Syndrome                                     | DSP     | RECESSIVE | NM_004415.2    | 99.77% |
| SLC6A4-Related Behavior Disorders                                       | SLC6A4  | DOMINANT  | NM_001045.4    | 99.17% |

|                                     |          |           |                |        |
|-------------------------------------|----------|-----------|----------------|--------|
| Small Fiber Neuropathy              | SCN9A    | DOMINANT  | NM_002977.3    | 99.43% |
| Small Patella Syndrome              | TBX4     | DOMINANT  | NM_018488.2    | 98.79% |
| Smith-Lemli-Opitz Syndrome          | DHCR7    | RECESSIVE | NM_001360.2    | 98.64% |
| Smith-McCort Dysplasia              | DYM      | RECESSIVE | NM_017653.3    | 99.04% |
| Sotos Syndrome                      | NSD1     | DOMINANT  | NM_022455.4    | 98.84% |
| Spastic Paraplegia, Dominant        | ATL1     | DOMINANT  | NM_015915.4    | 99.91% |
| Spastic Paraplegia, Dominant        | HSPD1    | DOMINANT  | NM_002156.4    | 96.58% |
| Spastic Paraplegia, Dominant        | KIAA0196 | DOMINANT  | NM_014846.3    | 99.91% |
| Spastic Paraplegia, Dominant        | KIF5A    | DOMINANT  | NM_004984.2    | 99.77% |
| Spastic Paraplegia, Dominant        | NIPA1    | DOMINANT  | NM_144599.4    | 97.06% |
| Spastic Paraplegia, Dominant        | SLC33A1  | DOMINANT  | NM_004733.3    | 97.03% |
| Spastic Paraplegia, Dominant        | SPAST    | DOMINANT  | NM_014946.3    | 96.86% |
| Spastic Paraplegia, Dominant        | ZFYVE27  | DOMINANT  | NM_001002261.3 | 99.72% |
| Spastic Paraplegia, Recessive       | CYP7B1   | RECESSIVE | NM_004820.3    | 99.48% |
| Spastic Paraplegia, Recessive       | KIF1A    | RECESSIVE | NM_004321.6    | 98.68% |
| Spastic Paraplegia, Recessive       | PNPLA6   | RECESSIVE | NM_006702.4    | 95.80% |
| Spastic Paraplegia, Recessive       | SPG11    | RECESSIVE | NM_025137.3    | 99.55% |
| Spastic Paraplegia, Recessive       | SPG7     | RECESSIVE | NM_003119.2    | 98.19% |
| Spastic Paraplegia, Recessive       | ZFYVE26  | RECESSIVE | NM_015346.3    | 99.35% |
| Spastic Quadriplegic Cerebral Palsy | GAD1     | RECESSIVE | NM_000817.2    | 97.76% |
| Speech-Language Disorder            | FOXP2    | DOMINANT  | NM_014491.3    | 99.15% |
| Spermatogenic Failure               | AURKC    | RECESSIVE | NM_001015878.1 | 96.35% |
| Spermatogenic Failure               | SPATA16  | RECESSIVE | NM_031955.5    | 99.96% |
| Spherocytosis, Dominant             | ANK1     | DOMINANT  | NM_000037.3    | 97.51% |
| Spherocytosis, Dominant             | SLC4A1   | DOMINANT  | NM_000342.3    | 97.69% |
| Spherocytosis, Dominant             | SPTB     | DOMINANT  | NM_000347.5    | 98.26% |
| Spherocytosis, Recessive            | EPB42    | RECESSIVE | NM_000119.2    | 99.81% |
| Spherocytosis, Recessive            | SPTA1    | RECESSIVE | NM_003126.2    | 99.65% |
| Spheroid Body Myopathy              | MYOT     | DOMINANT  | NM_006790.2    | 99.03% |



|                                      |         |           |             |        |
|--------------------------------------|---------|-----------|-------------|--------|
| Spinal Muscular Atrophy              | IGHMBP2 | X_LINKED  | NM_002180.2 | 99.18% |
| Spinal Muscular Atrophy, Dominant    | VAPB    | X_LINKED  | NM_004738.4 | 99.01% |
| Spinocerebellar Ataxia, Dominant     | AFG3L2  | DOMINANT  | NM_006796.2 | 98.39% |
| Spinocerebellar Ataxia, Dominant     | DYNC1H1 | DOMINANT  | NM_001376.4 | 99.09% |
| Spinocerebellar Ataxia, Dominant     | FGF14   | DOMINANT  | NM_004115.3 | 99.45% |
| Spinocerebellar Ataxia, Dominant     | ITPR1   | DOMINANT  | NM_002222.5 | 99.40% |
| Spinocerebellar Ataxia, Dominant     | PDYN    | DOMINANT  | NM_024411.4 | 99.95% |
| Spinocerebellar Ataxia, Dominant     | PRKCG   | DOMINANT  | NM_002739.3 | 97.49% |
| Spinocerebellar Ataxia, Dominant     | SPTBN2  | DOMINANT  | NM_006946.2 | 97.26% |
| Spinocerebellar Ataxia, Dominant     | TGM6    | DOMINANT  | NM_198994.2 | 98.26% |
| Spinocerebellar Ataxia, Recessive    | ADCK3   | RECESSIVE | NM_020247.4 | 97.82% |
| Spinocerebellar Ataxia, Recessive    | ANO10   | RECESSIVE | NM_018075.3 | 97.66% |
| Spinocerebellar Ataxia, Recessive    | C10orf2 | DOMINANT  | NM_021830.4 | 98.46% |
| Spinocerebellar Ataxia, Recessive    | TDP1    | RECESSIVE | NM_018319.3 | 99.48% |
| Split-Hand/Foot Malformation         | FBXW4   | DOMINANT  | NM_022039.3 | 98.61% |
| Spondylocostal Dysostosis            | DLL3    | RECESSIVE | NM_016941.3 | 97.41% |
| Spondyloepimetaphyseal Dysplasia     | DDR2    | DOMINANT  | NM_006182.2 | 98.99% |
| Spondyloepimetaphyseal Dysplasia     | MMP13   | DOMINANT  | NM_002427.3 | 99.91% |
| Spondyloepiphyseal Dysplasia         | CHST3   | RECESSIVE | NM_004273.4 | 98.22% |
| Spondylometaphyseal Dysplasia        | TRPV4   | DOMINANT  | NM_021625.4 | 97.17% |
| Spontaneous Pneumothorax             | FLCN    | DOMINANT  | NM_144997.5 | 96.89% |
| Stargardt Disease, Dominant          | ELOVL4  | DOMINANT  | NM_022726.3 | 99.30% |
| Stargardt Disease, Dominant          | PROM1   | DOMINANT  | NM_006017.2 | 99.87% |
| Stargardt Disease, Recessive         | ABCA4   | RECESSIVE | NM_000350.2 | 99.79% |
| Stargardt Disease, Recessive         | CNGB3   | RECESSIVE | NM_019098.4 | 99.76% |
| Steroid 5-Alpha-Reductase Deficiency | SRD5A2  | RECESSIVE | NM_000348.3 | 99.71% |
| Steroid-Resistant Nephrotic Syndrome | NPHS2   | RECESSIVE | NM_014625.2 | 96.76% |
| Stickler Syndrome, Dominant          | COL11A1 | DOMINANT  | NM_001854.3 | 98.66% |
| Stickler Syndrome, Dominant          | COL11A2 | DOMINANT  | NM_080680.2 | 99.38% |

|   |         |           |             |        |
|---|---------|-----------|-------------|--------|
| Stickler Syndrome, Dominant                       | COL2A1  | DOMINANT  | NM_001844.4 | 98.74% |
| Stickler Syndrome, Recessive                      | COL9A1  | RECESSIVE | NM_001851.4 | 99.62% |
| Stickler Syndrome, Recessive                      | COL9A2  | RECESSIVE | NM_001852.3 | 98.66% |
| Stiff Skin Syndrome                               | FBN1    | DOMINANT  | NM_000138.4 | 99.59% |
| Striatal Degeneration                             | PDE8B   | DOMINANT  | NM_003719.3 | 98.38% |
| Stuve-Wiedemann Syndrome                          | LIFR    | RECESSIVE | NM_002310.5 | 99.64% |
| Succinic Semialdehyde Dehydrogenase Deficiency    | ALDH5A1 | RECESSIVE | NM_001080.3 | 98.94% |
| Succinyl-CoA:3-Oxoacid CoA Transferase Deficiency | OXCT1   | RECESSIVE | NM_000436.3 | 99.61% |
| Sulfate Transporter-Related Osteochondrodysplasia | SLC26A2 | RECESSIVE | NM_000112.3 | 99.63% |
| Sulfocysteinuria                                  | SUOX    | RECESSIVE | NM_000456.2 | 98.33% |
| Supravalvular Aortic Stenosis                     | ELN     | DOMINANT  | NM_000501.2 | 97.00% |
| Syndactyly  | DLL3    | DOMINANT  | NM_016941.3 | 97.41% |
| Syndactyly  | GJA1    | DOMINANT  | NM_000165.3 | 95.58% |
| Syndromic Microphthalmia, Dominant                | BMP4    | DOMINANT  | NM_001202.3 | 98.31% |
| Syndromic Microphthalmia, Dominant                | OTX2    | DOMINANT  | NM_172337.2 | 99.73% |
| Syndromic Microphthalmia, Recessive               | STRA6   | RECESSIVE | NM_022369.3 | 97.91% |
| Systemic Primary Carnitine Deficiency             | SLC22A5 | RECESSIVE | NM_003060.3 | 97.34% |
| Tangier Disease                                   | ABCA1   | RECESSIVE | NM_005502.3 | 99.11% |
| Tetra-Amelia Syndrome                             | WNT3    | RECESSIVE | NM_030753.3 | 99.13% |
| Thiamine Metabolism Dysfunction Syndrome          | SLC19A3 | RECESSIVE | NM_025243.3 | 99.91% |
| Thiamine-Responsive Megaloblastic Anemia          | SLC19A2 | RECESSIVE | NM_006996.2 | 97.59% |
| Thiamine-Responsive Megaloblastic Anemia Syndrome | SLC19A2 | RECESSIVE | NM_006996.2 | 97.59% |
| Thiopurine S-Methyltransferase Deficiency         | TPMT    | RECESSIVE | NM_000367.2 | 97.83% |
| Thoracic Aortic Aneurysms and Aortic Dissections  | ACTA2   | DOMINANT  | NM_001613.2 | 99.98% |
| Thoracic Aortic Aneurysms and Aortic Dissections  | FBN1    | DOMINANT  | NM_000138.4 | 99.59% |
| Thoracic Aortic Aneurysms and Aortic Dissections  | MYH11   | DOMINANT  | NM_002474.2 | 99.77% |
| Thoracic Aortic Aneurysms and Aortic Dissections  | MYLK    | DOMINANT  | NM_053025.3 | 98.34% |
| Thoracic Aortic Aneurysms and Aortic Dissections  | SMAD3   | DOMINANT  | NM_005902.3 | 97.72% |
| Thoracic Aortic Aneurysms and Aortic Dissections  | TGFBR1  | DOMINANT  | NM_004612.2 | 97.77% |

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|--|---------|-----------|----------------|--------|
| Thoracic Aortic Aneurysms and Aortic Dissections | TGFBR2  | DOMINANT  | NM_003242.5    | 99.28% |
| Thrombasthenia of Glanzmann and Naegeli          | ITGA2B  | RECESSIVE | NM_000419.3    | 99.08% |
| Thrombasthenia of Glanzmann and Naegeli          | ITGB3   | RECESSIVE | NM_000212.2    | 99.34% |
| Thrombocytopenia                                 | ANKRD26 | DOMINANT  | NM_014915.2    | 99.86% |
| Thrombocytopenia                                 | CYCS    | DOMINANT  | NM_018947.5    | 95.94% |
| Thrombocytopenia                                 | MASTL   | DOMINANT  | NM_032844.3    | 98.86% |
| Thyroid Dysmorphogenesis                         | TG      | RECESSIVE | NM_003235.4    | 99.31% |
| Thyroid Hormone Resistance                       | THRB    | DOMINANT  | NM_000461.4    | 99.22% |
| Thyroid Hormonogenesis Defect                    | SLC5A5  | RECESSIVE | NM_000453.2    | 97.72% |
| Tietz Syndrome                                   | MITF    | DOMINANT  | NM_000248.3    | 99.88% |
| Timothy Syndrome                                 | CACNA1C | DOMINANT  | NM_000719.6    | 98.44% |
| Tourette Syndrome                                | SLITRK1 | DOMINANT  | NM_052910.1    | 97.73% |
| Townes-Brocks Syndrome                           | SALL1   | DOMINANT  | NM_002968.2    | 99.19% |
| TP63-Related Spectrum Disorders                  | TP63    | DOMINANT  | NM_003722.4    | 99.84% |
| Transaldolase Deficiency                         | TALDO1  | RECESSIVE | NM_006755.1    | 95.39% |
| Transcobalamin II Deficiency                     | TCN2    | RECESSIVE | NM_000355.3    | 99.54% |
| Transient Familial Neonatal Hyperbilirubinemia   | UGT1A1  | DOMINANT  | NM_000463.2    | 99.91% |
| Transient Neonatal Diabetes, Dominant            | KCNJ11  | DOMINANT  | NM_000525.3    | 91.82% |
| Transient Neonatal Diabetes, Dominant/Recessive  | ABCC8   | DOMINANT  | NM_000352.3    | 98.00% |
| Transient Neonatal Diabetes, Dominant/Recessive  | INS     | DOMINANT  | NM_000207.2    | 99.12% |
| Transient Neonatal Diabetes, Recessive           | GCK     | RECESSIVE | NM_000162.3    | 96.32% |
| Treacher Collins Syndrome, Dominant              | POLR1D  | DOMINANT  | NM_015972.3    | 96.74% |
| Treacher Collins Syndrome, Dominant              | TCOF1   | DOMINANT  | NM_001135243.1 | 98.70% |
| Treacher Collins Syndrome, Recessive             | POLR1C  | RECESSIVE | NM_203290.2    | 99.92% |
| Trichohepatoenteric Syndrome                     | SKIV2L  | RECESSIVE | NM_006929.4    | 98.96% |
| Trichorhinophalangeal Syndrome                   | TRPS1   | DOMINANT  | NM_014112.2    | 97.47% |
| Trifunctional Protein Deficiency                 | HADHA   | RECESSIVE | NM_000182.4    | 99.95% |
| Trifunctional Protein Deficiency                 | HADHB   | RECESSIVE | NM_000183.2    | 99.35% |
| Trimethylaminuria                                | FMO3    | RECESSIVE | NM_006894.5    | 99.96% |

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|---|--------|-----------|----------------|--------|
| Triosephosphate Isomerase Deficiency        | TPI1   | DOMINANT  | NM_000365.5    | 99.62% |
| Triphalangeal Thumb-Polysyndactyly Syndrome | LMBR1  | DOMINANT  | NM_022458.3    | 96.13% |
| Trismus-Pseudocamptodactyly Syndrome        | MYH8   | DOMINANT  | NM_002472.2    | 99.74% |
| Tryptophan Hydroxylase Deficiency           | TPH2   | DOMINANT  | NM_173353.3    | 99.88% |
| Tuberous Sclerosis                          | TSC1   | DOMINANT  | NM_000368.4    | 99.02% |
| Tuberous Sclerosis                          | TSC2   | DOMINANT  | NM_000548.3    | 97.93% |
| Tumor Predisposition Syndrome               | BAP1   | DOMINANT  | NM_004656.2    | 97.07% |
| Tylosis with Esophageal Cancer              | RHBDF2 | DOMINANT  | NM_024599.5    | 98.08% |
| Type II Collagenopathies                    | COL2A1 | DOMINANT  | NM_001844.4    | 98.74% |
| Tyrosine Hydroxylase Deficiency             | TH     | RECESSIVE | NM_000360.3    | 99.55% |
| Tyrosinemia                                 | FAH    | RECESSIVE | NM_000137.2    | 96.54% |
| Tyrosinemia                                 | HPD    | RECESSIVE | NM_002150.2    | 98.58% |
| Tyrosinemia                                 | TAT    | RECESSIVE | NM_000353.2    | 99.97% |
| Udd Distal Myopathy                         | TTN    | DOMINANT  | NM_133378.4    | 99.55% |
| Ulnar-Mammary Syndrome                      | TBX3   | DOMINANT  | NM_005996.3    | 98.86% |
| Unverricht-Lundborg Disease                 | CSTB   | RECESSIVE | NM_000100.3    | 99.82% |
| Usher Syndrome                              | CDH23  | RECESSIVE | NM_022124.5    | 97.08% |
| Usher Syndrome                              | CLRN1  | RECESSIVE | NM_174878.2    | 99.54% |
| Usher Syndrome                              | DFNB31 | RECESSIVE | NM_015404.3    | 96.78% |
| Usher Syndrome                              | GPR98  | RECESSIVE | NM_032119.3    | 99.84% |
| Usher Syndrome                              | HARS   | RECESSIVE | NM_002109.4    | 99.08% |
| Usher Syndrome                              | MYO7A  | RECESSIVE | NM_000260.3    | 98.70% |
| Usher Syndrome                              | PCDH15 | RECESSIVE | NM_033056.3    | 99.93% |
| Usher Syndrome                              | USH1C  | RECESSIVE | NM_005709.3    | 97.95% |
| Usher Syndrome                              | USH2A  | RECESSIVE | NM_007123.5    | 99.98% |
| VACTERL Association with Hydrocephalus      | FANCB  | X_LINKED  | NM_001018113.1 | 94.19% |
| van der Woude Syndrome                      | IRF6   | DOMINANT  | NM_006147.3    | 99.06% |
| Variegate Porphyria                         | PPOX   | DOMINANT  | NM_000309.3    | 99.64% |
| Vesicoureteral Reflux                       | ROBO2  | DOMINANT  | NM_002942.4    | 99.78% |

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| Vitamin D-Dependent Rickets          | CYP27B1  | RECESSIVE | NM_000785.3    | 98.41% |
| Vitamin D-Dependent Rickets          | VDR      | RECESSIVE | NM_001017535.1 | 98.22% |
| Vitamin K-Dependent Clotting Factors | GGCX     | RECESSIVE | NM_000821.5    | 99.60% |
| Vitamin K-Dependent Clotting Factors | VKORC1   | RECESSIVE | NM_024006.4    | 98.71% |
| Vitelliform Macular Dystrophy        | PRPH2    | DOMINANT  | NM_000322.4    | 99.36% |
| Vitreoretinopathy                    | BEST1    | DOMINANT  | NM_004183.3    | 99.21% |
| Vitreoretinopathy                    | VCAN     | DOMINANT  | NM_004385.4    | 99.60% |
| VLCAD Deficiency                     | ACADVL   | RECESSIVE | NM_000018.2    | 99.13% |
| Vohwinkel Syndrome                   | GJB2     | DOMINANT  | NM_004004.5    | 97.20% |
| Von Hippel-Lindau Syndrome           | VHL      | DOMINANT  | NM_000551.3    | 94.77% |
| von Willebrand Disease               | VWF      | DOMINANT  | NM_000552.3    | 95.17% |
| VSX2-related Microphthalmia          | VSX2     | RECESSIVE | NM_182894.2    | 99.45% |
| Waardenburg Syndrome                 | EDN3     | DOMINANT  | NM_207034.1    | 98.17% |
| Waardenburg Syndrome                 | EDNRB    | DOMINANT  | NM_000115.3    | 99.44% |
| Waardenburg Syndrome                 | MITF     | DOMINANT  | NM_000248.3    | 99.88% |
| Waardenburg Syndrome                 | PAX3     | DOMINANT  | NM_181457.3    | 97.63% |
| Waardenburg Syndrome                 | SNAI2    | DOMINANT  | NM_003068.4    | 97.30% |
| Waardenburg Syndrome                 | SOX10    | DOMINANT  | NM_006941.3    | 96.64% |
| Wagner Syndrome                      | VCAN     | DOMINANT  | NM_004385.4    | 99.60% |
| WAGR Syndrome                        | PAX6     | DOMINANT  | NM_000280.4    | 99.26% |
| WAGR Syndrome                        | WT1      | DOMINANT  | NM_024426.4    | 95.44% |
| Walker-Warburg Syndrome              | LARGE    | RECESSIVE | NM_004737.4    | 98.32% |
| Warburg Micro Syndrome               | RAB18    | RECESSIVE | NM_021252.4    | 99.27% |
| Warburg Micro Syndrome               | RAB3GAP1 | RECESSIVE | NM_012233.2    | 99.72% |
| Warburg Micro Syndrome               | RAB3GAP2 | RECESSIVE | NM_012414.3    | 99.31% |
| Watson Syndrome                      | NF1      | DOMINANT  | NM_000267.3    | 98.11% |
| Weaver Syndrome                      | EZH2     | DOMINANT  | NM_004456.4    | 97.77% |
| Weaver Syndrome                      | NSD1     | DOMINANT  | NM_022455.4    | 98.84% |
| Weill-Marchesani Syndrome            | ADAMTS10 | DOMINANT  | NM_030957.2    | 97.80% |

|                                   |          |           |                |        |
|-----------------------------------|----------|-----------|----------------|--------|
| Weill-Marchesani Syndrome         | FBN1     | DOMINANT  | NM_000138.4    | 99.59% |
| Weill-Marchesani Syndrome         | LTBP2    | DOMINANT  | NM_000428.2    | 99.04% |
| Weill-Marchesani-Like Syndrome    | ADAMTS17 | RECESSIVE | NM_139057.2    | 95.08% |
| Weissenbacher-Zweymuller Syndrome | COL11A2  | DOMINANT  | NM_080680.2    | 99.38% |
| Werner Syndrome                   | WRN      | RECESSIVE | NM_000553.4    | 96.11% |
| Weyers Acrofacial Dysostosis      | EVC      | DOMINANT  | NM_153717.2    | 95.39% |
| WFS1-Related Spectrum Disorders   | WFS1     | DOMINANT  | NM_006005.3    | 86.69% |
| White Sponge Nevus of Cannon      | KRT13    | DOMINANT  | NM_002274.3    | 98.59% |
| White Sponge Nevus of Cannon      | KRT4     | DOMINANT  | NM_002272.3    | 98.56% |
| Wilms Tumor                       | WT1      | DOMINANT  | NM_024426.4    | 95.44% |
| Wilson Disease                    | ATP7B    | RECESSIVE | NM_000053.2    | 98.80% |
| Winchester Syndrome               | MMP2     | RECESSIVE | NM_004530.4    | 97.78% |
| Wolff-Parkinson-White Syndrome    | PRKAG2   | DOMINANT  | NM_016203.3    | 97.03% |
| Wolf-Hirschhorn Syndrome          | WHSC1    | DOMINANT  | NM_133330.2    | 99.58% |
| Wolman Disease                    | LIPA     | RECESSIVE | NM_000235.2    | 99.79% |
| Woodhouse-Sakati Syndrome         | DCAF17   | RECESSIVE | NM_025000.3    | 99.77% |
| Xanthinuria                       | XDH      | DOMINANT  | NM_000379.3    | 99.95% |
| Xeroderma Pigmentosum             | DDB2     | RECESSIVE | NM_000107.2    | 99.69% |
| Xeroderma Pigmentosum             | ERCC1    | RECESSIVE | NM_202001.2    | 99.22% |
| Xeroderma Pigmentosum             | ERCC2    | RECESSIVE | NM_000400.3    | 97.35% |
| Xeroderma Pigmentosum             | ERCC3    | RECESSIVE | NM_000122.1    | 99.91% |
| Xeroderma Pigmentosum             | ERCC4    | RECESSIVE | NM_005236.2    | 99.89% |
| Xeroderma Pigmentosum             | ERCC5    | RECESSIVE | NM_000123.3    | 99.93% |
| Xeroderma Pigmentosum             | POLH     | RECESSIVE | NM_006502.2    | 96.06% |
| Xeroderma Pigmentosum             | XPA      | RECESSIVE | NM_000380.3    | 99.22% |
| Xeroderma Pigmentosum             | XPC      | RECESSIVE | NM_004628.4    | 98.81% |
| X-Linked Hypophosphatemia         | PHEX     | X_LINKED  | NM_000444.4    | 96.84% |
| Zaspopathy                        | LDB3     | DOMINANT  | NM_001080116.1 | 99.33% |
| Zellweger Syndrome                | PEX1     | RECESSIVE | NM_000466.2    | 99.23% |

|                              |       |           |                |        |
|------------------------------|-------|-----------|----------------|--------|
| Zellweger Syndrome           | PEX10 | RECESSIVE | NM_153818.1    | 95.56% |
| Zellweger Syndrome           | PEX12 | RECESSIVE | NM_000286.2    | 99.86% |
| Zellweger Syndrome           | PEX13 | RECESSIVE | NM_002618.3    | 99.37% |
| Zellweger Syndrome           | PEX14 | RECESSIVE | NM_004565.2    | 96.23% |
| Zellweger Syndrome           | PEX16 | RECESSIVE | NM_004813.2    | 98.64% |
| Zellweger Syndrome           | PEX19 | RECESSIVE | NM_002857.3    | 99.90% |
| Zellweger Syndrome           | PEX2  | RECESSIVE | NM_000318.2    | 99.44% |
| Zellweger Syndrome           | PEX26 | RECESSIVE | NM_017929.5    | 99.34% |
| Zellweger Syndrome           | PEX3  | RECESSIVE | NM_003630.2    | 97.54% |
| Zellweger Syndrome           | PEX5  | RECESSIVE | NM_001131025.1 | 97.44% |
| Zellweger Syndrome           | PEX6  | RECESSIVE | NM_000287.3    | 98.32% |
| Zonular Pulverulent Cataract | GJA3  | DOMINANT  | NM_021954.3    | 98.25% |
| Zonular Pulverulent Cataract | GJA8  | DOMINANT  | NM_005267.4    | 99.35% |