

Appendix 2

Appendix 2: Alphabetical listing of disease associated gene loci in the Arab population of Saudi Arabia as indexed in the CTGA Database (November 2018).

| OMIM# | Gene |
|--------|---|
| 603100 | 1-Acylglycerol-3-Phosphate O-Acyltransferase 2 |
| 607764 | 3-@Beta-Hydroxy-Delta-5-C27-Steroid Oxidoreductase |
| 613898 | 3-Hydroxy-3-Methylglutaryl-CoA Lyase |
| 609014 | 3-Methylcrotonyl-CoA Carboxylase 2 |
| 601424 | 3-Oxoacid CoA Transferase 1 |
| 607093 | 5,10-@Methylenetetrahydrofolate Reductase |
| 156570 | 5-Methyltetrahydrofolate-Homocysteine S-Methyltransferase |
| 602858 | 7-Dehydrocholesterol Reductase |
| 608990 | A Disintegrin-Like and Metalloproteinase with Thrombospondin Type 1 Motif, 10 |
| 607511 | A Disintegrin-Like and Metalloproteinase with Thrombospondin Type 1 Motif, 17 |
| 607512 | A Disintegrin-Like and Metalloproteinase with Thrombospondin Type 1 Motif, 18 |
| 615900 | AATP/GTP-Binding Protein-Like 5 |
| 608894 | Abelson Helper Integration Site 1 |
| 616966 | Abhydrolase Domain-Containing Protein 6 |
| 605481 | Abnormal Spindle-Like, Microcephaly-Associated |
| 243400 | Acetylation, Slow |
| 102610 | Actin, Alpha, Skeletal Muscle 1 |
| 601284 | Activin A Receptor, Type II-Like 1 |
| 607008 | Acyl-CoA Dehydrogenase, Medium-Chain |
| 609575 | Acyl-CoA Dehydrogenase, Very Long-Chain |
| 602166 | Adaptor-Related Protein Complex 3, Beta-2 Subunit |
| 608958 | Adenosine Deaminase |
| 615302 | Adenosine Deaminase, tRNA-Specific, 3 |
| 102770 | Adenosine Monophosphate Deaminase 1 |
| 608009 | Adenylate Kinase 5 |
| 602683 | Adhesion G Protein-Coupled Receptor B2 |
| 612307 | Adhesion G Protein-Coupled Receptor G7 |
| 607945 | Adiponectin Receptor 1 |
| 608845 | ADP-Ribosylation Factor-Like 6 |
| 608570 | AHNAK Nucleoprotein 2 |
| 604691 | A-Kinase Anchor Protein 6 |
| 600463 | Aldehyde Dehydrogenase 1 Family, Member A3 |
| 607905 | ALG2, S. Cerevisiae, Homolog of |
| 608750 | ALG3, S.cerevisiae, Homolog of |
| 604566 | ALG6, S. Cerevisiae, Homolog of |
| 608103 | ALG8, S.cerevisiae, Homolog of |
| 606941 | ALG9, S. Cerevisiae, Homolog of |
| 613738 | Alkylglycerol Monooxygenase |

| OMIM# | Gene |
|--------|---|
| 606844 | ALMS1 Gene |
| 104260 | Alpha-2B-Adrenergic Receptor |
| 606352 | Alsin |
| 614413 | Aminoacylase 3 |
| 106180 | Angiotensin I-Converting Enzyme |
| 605760 | Ankyrin Repeat- And SOCS Box-Containing Protein 3 |
| 608041 | Anthrax Toxin Receptor 2 |
| 600956 | Anti-Mullerian Hormone Type II Receptor |
| 107680 | Apolipoprotein A-I |
| 107741 | Apolipoprotein E |
| 107777 | Aquaporin 2 |
| 152392 | Arachidonate 15-Lipoxygenase |
| 608313 | Arginase, Liver |
| 608310 | Argininosuccinate Lyase |
| 602753 | Aristaless Homeo Box, Drosophila, Homolog of |
| 611647 | ARV1, S. Cerevisiae, Homolog of |
| 607574 | Arylsulfatase A |
| 300180 | Arylsulfatase E |
| 108370 | Asparagine Synthetase |
| 608034 | Aspartoacylase |
| 610956 | Aspartyl-tRNA Synthetase 2 |
| 614301 | Ataxin 1-Like |
| 601461 | Atonal, Drosophila, Homolog Of, 1 |
| 516060 | ATP Synthase 6 |
| 516070 | ATP Synthase 8 |
| 606830 | ATP/GTP-Binding Protein 1 |
| 602397 | ATPase, Class I, Type 8B, Member 1 |
| 606882 | ATPase, Cu(2+)-Transporting, Beta Polypeptide |
| 605239 | ATPase, H+ Transporting, Lysosomal, V0 Subunit A, Isoform 4 |
| 607800 | ATP-Binding Cassette, Subfamily A, Member 12 |
| 601615 | ATP-Binding Cassette, Subfamily A, Member 3 |
| 601691 | ATP-Binding Cassette, Subfamily A, Member 4 |
| 171050 | ATP-Binding Cassette, Subfamily B, Member 1 |
| 603201 | ATP-Binding Cassette, Subfamily B, Member 11 |
| 171060 | ATP-Binding Cassette, Subfamily B, Member 4 |
| 600509 | ATP-Binding Cassette, Subfamily C, Member 8 |
| 601107 | ATP-Binding-Cassette, Subfamily C, Member 2 |
| 614144 | B9 Domain-Containing Protein 1 |
| 600355 | Baculoviral IAP Repeat-Containing Protein 1 |

| OMIM# | Gene |
|--------|--|
| 606151 | BBS2 Gene |
| 600374 | BBS4 Gene |
| 603650 | BBS5 Gene |
| 607590 | BBS7 Gene |
| 109690 | Beta-2-Adrenergic Receptor |
| 109691 | Beta-3-Adrenergic Receptor |
| 611499 | Beta-Glucuronidase |
| 605882 | BRCA1-Interacting Protein |
| 600185 | BRCA2 Gene |
| 113705 | Breast Cancer 1 Gene |
| 613594 | Butyrophilin, Subfamily 3, Member A2 |
| 600023 | Cadherin 11 |
| 613165 | Calcium-Activated Nucleotidase 1 |
| 605563 | Calcium-Binding Protein 1 |
| 608965 | Calcium-Binding Protein 4 |
| 607724 | Calcyphosine 2 |
| 114240 | Calpain 3 |
| 114251 | Calsequestrin 2 |
| 611323 | Calsyntenin 2 |
| 611492 | Carbonic Anhydrase II |
| 114815 | Carbonic Anhydrase VIII |
| 114025 | Catenin, Alpha-2 |
| 602365 | Cathepsin C |
| 116820 | Cathepsin H |
| 613381 | CBS Gene |
| 109535 | CD40 Antigen |
| 608201 | CDK5 Regulatory Subunit-Associated Protein 2 |
| 613149 | CDKN2B Antisense RNA |
| 609544 | Centriolar Coiled-Coil Protein, 110-KD |
| 609279 | Centromeric Protein J |
| 611423 | Centrosomal Protein, 135-KD |
| 613529 | Centrosomal Protein, 152-KD |
| 610142 | Centrosomal Protein, 290-KD |
| 615864 | Centrosomal Protein, 97-kD |
| 611654 | Centrosome Spindle Pole-Associated Protein 1 |
| 600835 | Chemokine, CXC Motif, Ligand 12 |
| 118507 | Cholinergic Receptor, Neuronal Nicotinic, Beta Polypeptide 2 |
| 100720 | Cholinergic Receptor, Nicotinic, Delta Polypeptide |
| 100725 | Cholinergic Receptor, Nicotinic, Epsilon Polypeptide |

| OMIM# | Gene |
|--------|---|
| 100730 | Cholinergic Receptor, Nicotinic, Gamma Polypeptide |
| 610528 | Chromodomain Helicase DNA-Binding Protein 8 |
| 615140 | Chromosome 12 Open Reading Frame 57 |
| 605752 | Chromosome 17 Open Reading Frame 28 |
| 603191 | Chromosome 21 Open Reading Frame 2 |
| 614571 | Chromosome 5 Open Reading Frame 42 |
| 605629 | Citron Rho-Interacting Serine/Threonine Kinase |
| 606397 | Clarín 1 |
| 606725 | CLN6 Gene |
| 616787 | Clusterin-Associated Protein 1 |
| 176930 | Coagulation Factor II |
| 612309 | Coagulation Factor V |
| 300841 | Coagulation Factor VIII |
| 607817 | COH1 Gene |
| 612013 | Coiled-Coil and C2 Domains-Containing Protein 2A |
| 120150 | Collagen, Type I, Alpha-1 |
| 120280 | Collagen, Type XI, Alpha-1 |
| 120328 | Collagen, Type XVIII, Alpha-1 |
| 306250 | Colony-Stimulating Factor 2 Receptor, Alpha |
| 516001 | Complex I, Subunit ND2 |
| 516002 | Complex I, Subunit ND3 |
| 516003 | Complex I, Subunit ND4 |
| 516004 | Complex I, Subunit ND4L |
| 516005 | Complex I, Subunit ND5 |
| 516006 | Complex I, Subunit ND6 |
| 516030 | Complex IV, Cytochrome c Oxidase Subunit I |
| 516040 | Complex IV, Cytochrome c Oxidase Subunit II |
| 606821 | Component of Oligomeric Golgi Complex 5 |
| 606977 | Component of Oligomeric Golgi Complex 6 |
| 601325 | Contactin 3 |
| 607219 | Contactin 5 |
| 605688 | Copine VI |
| 604210 | Crumbs, Drosophila, Homolog of, 1 |
| 123580 | Crystallin, Alpha-A |
| 123590 | Crystallin, Alpha-B |
| 600929 | Crystallin, Beta-B1 |
| 602997 | Cubilin |
| 609577 | Cullin 7 |
| 615186 | Cwc22 Spliceosome-Associated Protein, S. Cerevisiae, Homolog Of |

| OMIM# | Gene |
|--------|---|
| 600053 | Cyclic Nucleotide-Gated Channel, Alpha-3 |
| 607805 | Cyclin M4 |
| 116899 | Cyclin-Dependent Kinase Inhibitor 1A |
| 600160 | Cyclin-Dependent Kinase Inhibitor 2A |
| 600431 | Cyclin-Dependent Kinase Inhibitor 2B |
| 602421 | Cystic Fibrosis Transmembrane Conductance Regulator |
| 606272 | Cystinosis |
| 516020 | Cytochrome b of Complex III |
| 516050 | Cytochrome c Oxidase III |
| 124089 | Cytochrome c Oxidase, Subunit VIb, Polypeptide 1 |
| 613815 | Cytochrome P450, Family 21, Subfamily A, Polypeptide 2 |
| 108330 | Cytochrome P450, Subfamily A, Polypeptide 1 |
| 601771 | Cytochrome P450, Subfamily I, Polypeptide 1 |
| 124020 | Cytochrome P450, Subfamily IIC, Polypeptide 19 |
| 601130 | Cytochrome P450, Subfamily IIC, Polypeptide 9 |
| 124030 | Cytochrome P450, Subfamily IID, Polypeptide 6 |
| 124010 | Cytochrome P450, Subfamily IIIA, Polypeptide 4 |
| 609506 | Cytochrome P450, Subfamily XXVIIIB, Polypeptide 1 |
| 612515 | DDB1- and CUL4-Associated Factor 17 |
| 614194 | Dedicator of Cytokinesis 6 |
| 611432 | Dedicator of Cytokinesis 8 |
| 120470 | Deleted in Colorectal Carcinoma |
| 617278 | DENN Domain-Containing Protein 5A |
| 601465 | Deoxyguanosine Kinase |
| 602244 | Deoxyribonuclease I-Like 3 |
| 617211 | Dermokine |
| 125647 | Desmoplakin |
| 248610 | Dihydroipoamide Branched-Chain Transacylase |
| 238331 | Dihydroipoamide Dehydrogenase |
| 602151 | Dishevelled 2 |
| 600028 | Distal-Less Homeobox 5 |
| 605671 | DMX-Like 1 |
| 602900 | DNA Methyltransferase 3B |
| 605077 | DNMT1-Associated Protein 1 |
| 191350 | Dolichyl-Phosphate N-Acetylglucosamine Phosphotransferase |
| 613166 | Doublecortin-Like Kinase 2 |
| 602523 | Down Syndrome Cell Adhesion Molecule |
| 603527 | DPH1, S.cerevisiae, Homolog of |
| 617277 | Dynein Heavy Chain Domain 1 |

| OMIM# | Gene |
|--------|--|
| 603297 | Dynein, Cytoplasmic 2, Heavy Chain 1 |
| 300377 | Dystrophin |
| 606265 | E1A-Binding Protein, 400-KD |
| 615068 | Ectopic P-Granules Autophagy Protein 5, C. Elegans, Homolog of |
| 605512 | ELOVL4 Gene |
| 611605 | Endoplasmic Reticulum Lipid Raft-Associated Protein 2 |
| 616846 | Endoplasmic Reticulum Membrane Protein Complex, Subunit 1 |
| 606421 | Engulfment and Cell Motility Gene 2 |
| 601573 | Enhancer of Zeste, Drosophila, Homolog 2 |
| 600305 | Enoyl-CoA Delta Isomerase 1 |
| 602292 | Enoyl-CoA Hydratase, Short-Chain, 1, Mitochondrial |
| 176946 | Ephrin Receptor EphA2 |
| 185535 | Epithelial Cellular Adhesion Molecule |
| 611730 | Erythrocyte Membrane Protein Band 4.1-Like 5 |
| 604032 | Eukaryotic Translation Initiation Factor 2-Alpha Kinase 3 |
| 606686 | Eukaryotic Translation Initiation Factor 2B, Subunit 1 |
| 606454 | Eukaryotic Translation Initiation Factor 2B, Subunit 2 |
| 608546 | Eukaryotic Translation Initiation Factor 4A, Isoform 3 |
| 607261 | EVC2 Gene |
| 608185 | Exocyst Complex Component 4 |
| 602201 | Extracellular Matrix Protein 1 |
| 227400 | Factor V Deficiency |
| 613114 | Family with Sequence Similarity 134, Member B |
| 613899 | FANCC Gene |
| 606965 | Fas-Activated Serine/Threonine Kinase |
| 609088 | F-Box and Leucine-Rich Repeat Protein 22 |
| 606604 | F-Box Only Protein 32 |
| 607900 | Fermitin Family (Drosophila) Homolog 1 |
| 607414 | FEZ Family Zinc Finger Protein 2 |
| 164950 | Fibroblast Growth Factor 3 |
| 611906 | Fibronectin Type III Domain-Containing Protein 5 |
| 300017 | Filamin A |
| 607063 | FK506-Binding Protein 10 |
| 136351 | FMS-Related Tyrosine Kinase 3 |
| 601090 | Forkhead Box C1 |
| 300163 | Four-and-a-Half LIM Domains 1 |
| 601153 | Fragile Histidine Triad Gene |
| 611570 | Fructose-1,6-Bisphosphatase |

| OMIM# | Gene |
|--------|---|
| 606596 | Fukutin-Related Protein |
| 613871 | Fumarylacetoacetate Hydrolase |
| 607182 | FYVE and Coiled-Coil Domain Containing 1 |
| 606925 | G Protein-Coupled Receptor 103 |
| 614515 | G Protein-Coupled Receptor 179 |
| 604161 | G Protein-Coupled Receptor 54 |
| 608434 | G Protein-Coupled Receptor Kinase-Interacting Protein 1 |
| 612222 | Galactosamine-6-Sulfate Sulfatase |
| 611458 | Galactosidase, Beta-1 |
| 608803 | GAP Junction Protein, GAMMA-2 |
| 613842 | GDNF-Inducible Zinc Finger Protein 1 |
| 606969 | Gem-Associated Protein 4 |
| 607419 | GEM-Associated Protein 7 |
| 603371 | GLE1, RNA Export Mediator |
| 165240 | GLI-Kruppel Family Member 3 |
| 610192 | GLIS Family Zinc Finger Protein 3 |
| 600429 | Glucosaminyl (N-Acetyl) Transferase 2, I-Branching Enzyme |
| 613742 | Glucose-6-Phosphatase, Catalytic |
| 606800 | Glucosidase, Alpha, Acid |
| 606463 | Glucosidase, Beta, Acid |
| 600282 | Glutamate Receptor, Ionotropic, Kainate 4 |
| 138350 | Glutathione S-Transferase, MU-1 |
| 600436 | Glutathione S-Transferase, Theta-1 |
| 138492 | Glycine Receptor, Beta Subunit |
| 139320 | GNAS Complex Locus |
| 602580 | Golgi Autoantigen, Golgin Subfamily A, 2 |
| 607983 | Golgin, RAB6-Interacting |
| 604851 | G-Rich RNA Sequence-Binding Factor 1 |
| 139250 | Growth Hormone 1 |
| 601146 | Growth/Differentiation Factor 5 |
| 162060 | Growth-Associated Protein 43 |
| 604447 | Guanine Nucleotide-Binding Protein, Beta-5 |
| 600179 | Guanylate Cyclase 2D, Membrane |
| 602302 | Hairless, Mouse, Homolog of |
| 140100 | Haptoglobin |
| 605998 | HCLS1-Associated Protein X1 |
| 141850 | Hemoglobin--Alpha Locus 2 |
| 613469 | Heparanase 2 |
| 606869 | Hexosaminidase A |

| OMIM# | Gene |
|--------|---|
| 606873 | Hexosaminidase B |
| 613609 | HFE Gene |
| 142955 | Homeobox A1 |
| 603924 | Hyaluronan-Binding Protein 2 |
| 600502 | Immunoglobulin MU Binding Protein 2 |
| 147265 | Inositol 1,4,5-Triphosphate Receptor, Type 1 |
| 602867 | Insulin-Like Growth Factor-Binding Protein 7 |
| 192968 | Integrin, Alpha-1 |
| 600065 | Integrin, Beta-2 |
| 173470 | Integrin, Beta-3 |
| 607403 | Interferon, Lambda-1 |
| 147569 | Interferon-Gamma Receptor 2 |
| 606883 | Interleukin 1 Receptor-Associated Kinase 4 |
| 124092 | Interleukin 10 |
| 161561 | Interleukin 12B |
| 147781 | Interleukin 4 Receptor |
| 607056 | Interphotoreceptor Matrix Proteoglycan 2 |
| 614620 | Intraflagellar Transport 140, Chlamydomonas, Homolog of |
| 243305 | Inversin |
| 609237 | IQ Motif-Containing Protein B1 |
| 615317 | Iron-Sulfur Cluster Assembly 2, S. cerevisiae, Homolog of |
| 607036 | Isovaleryl-CoA Dehydrogenase |
| 611295 | Kelch-Like 24 |
| 603288 | Keratocan |
| 610657 | KIAA0196 Gene |
| 611565 | KIAA1109 Gene |
| 608283 | Kinesin Family Member 21A |
| 613919 | Kinesin Family Member 6 |
| 308840 | L1 Cell Adhesion Molecule |
| 609584 | L-2-Hydroxyglutarate Dehydrogenase |
| 603202 | Lactase |
| 156225 | Laminin, Alpha-2 |
| 600805 | Laminin, Alpha-3 |
| 150292 | Laminin, Gamma-2 |
| 604349 | Laminin, Gamma-3 |
| 611408 | LCA5 Gene |
| 604537 | Leber Congenital Amaurosis 5 |
| 164160 | Leptin |
| 601007 | Leptin Receptor |

| OMIM# | Gene |
|--------|--|
| 615218 | Leucine-Rich Repeat-Containing Protein 52 |
| 604544 | Leucyl-tRNA Synthetase 2 |
| 606453 | Lipopolysaccharide-Responsive, Beige-Like Anchor Protein |
| 609708 | Lipoprotein Lipase |
| 605490 | Lon Peptidase 1, Mitochondrial |
| 606945 | Low Density Lipoprotein Receptor |
| 104225 | Low Density Lipoprotein Receptor-Related Protein-Associated Protein1 (*) |
| 159555 | Lysine-Specific Methyltransferase 2A |
| 606833 | Lysine-Specific Methyltransferase 2C |
| 153456 | Lysyl Oxidase-Like 1 |
| 153620 | Macrophage Migration Inhibitory Factor |
| 600660 | MADS Box Transcription Enhancer Factor 2, Polypeptide A |
| 614397 | Major Fcailitator Superfamily Domain-Containing Protein 2A |
| 142800 | Major Histocompatibility Complex, Class I, A |
| 142830 | Major Histocompatibility Complex, Class I, B |
| 142840 | Major Histocompatibility Complex, Class I, C |
| 142860 | Major Histocompatibility Complex, Class II, DR Alpha |
| 142857 | Major Histocompatibility Complex, Class II, DR Beta-1 |
| 612879 | MAM Domain-Containing Protein 2 |
| 300930 | MAP7 Domain-Containing Protein 3 |
| 120360 | Matrix Metalloproteinase 2 |
| 604629 | Matrix Metalloproteinase 20 |
| 607117 | MCPH1 Gene |
| 605043 | Mediator Complex Subunit 26 |
| 600814 | Meiotic Recombination 11, S. Cerevisiae, Homolog of, A |
| 607397 | Melanocortin 2 Receptor |
| 155541 | Melanocortin 4 Receptor |
| 610973 | Membrane Protein, Palmitoylated 7 |
| 606227 | Membrane-Type Frizzled-Related Protein |
| 613733 | MEN1 Gene |
| 604705 | MER Tyrosine Kinase Protooncogene |
| 600147 | Mesenchyme Homeobox 1 |
| 610323 | Metadherin |
| 156569 | Methylguanine-DNA Methyltransferase |
| 615262 | Methyltransferase-Like 23 |
| 157147 | Microsomal Triglyceride Transfer Protein |
| 609204 | Mitochondrial Ribosomal Protein S16 |
| 611995 | Mitochondrial Ribosomal Protein S35 |

| OMIM# | Gene |
|--------|---|
| 157660 | Mitochondrial RNA-Processing Endoribonuclease, RNA Component of |
| 609883 | MKS1 Gene |
| 158120 | Monocyte Differentiation Antigen CD14 |
| 164785 | Mouse Double Minute 2 Homolog |
| 137960 | MPV17, Mouse, Homolog of |
| 616297 | Multiple C2 Domains-Containing Transmembrane Protein 2 |
| 603785 | Multiple PDZ Domain Protein' |
| 601652 | Myocilin |
| 276903 | Myosin VIIA |
| 160760 | Myosin, Heavy Chain 7, Cardiac Muscle, Beta |
| 607295 | MyosinXVIIIIB |
| 603557 | Myotubularin-Related Protein 2 |
| 606260 | Myotubularin-Related Protein 9 |
| 108345 | N-Acetyltransferase 1 |
| 612182 | N-Acetyltransferase 2 |
| 613468 | N-Acylsphingosine Amidohydrolase 1 |
| 125860 | NAD(P)H Dehydrogenase, Quinone 1 |
| 300658 | NDP Gene |
| 611624 | NECAP Endocytosis-Associated Protein 2 |
| 607100 | Nephrocystin 1 |
| 608002 | Nephrocystin 3 |
| 607215 | Nephrocystin 4 |
| 609799 | Never in Mitosis Gene A-Related Kinase 8 |
| 300457 | NHS Gene |
| 163729 | Nitric Oxide Synthase 3 |
| 601817 | Nonmetastatic Cells 3, Protein Expressed in |
| 600273 | NOTCH, Drosophila, Homolog of, 3 |
| 608378 | Nuclear Export Mediator Factor |
| 601448 | Nuclear Protein, Ataxia-Telangiectasia Locus |
| 604485 | Nuclear Receptor Subfamily 2, Group E, Member 3 |
| 607617 | Nucleoporin, 107-KD |
| 605956 | Nucleotide-Binding Oligomerization Domain Protein 2 |
| 609449 | Nude, A. Nidulans, Homolog of, 1 |
| 602852 | NUDIX Hydrolase 2 |
| 610991 | Obscurin-Like 1 |
| 602876 | Occludin |
| 300127 | Oligophrenin 1 |
| 602432 | Optineurin |

| OMIM# | Gene |
|--------|--|
| 601902 | Origin Recognition Complex, Subunit 1, <i>S. cerevisiae</i> , Homolog of |
| 600037 | Orthodenticle, <i>Drosophila</i> , Homolog of, 2 |
| 603681 | Otoferlin |
| 607108 | Paired Box Gene 6 |
| 167410 | Paired Box Gene 7 |
| 167416 | Paired Box Gene 9 |
| 168820 | Paraoxonase 1 |
| 168468 | Parathyroid Hormone 1 Receptor |
| 610355 | Partner and Localizer of BRCA2 |
| 601309 | Patched, <i>Drosophila</i> , Homolog of, 1 |
| 610697 | PDZ Domain-Containing 2 |
| 608625 | Peptidyl-tRNA Hydrolase 2 |
| 170280 | Perforin 1 |
| 179605 | Peripherin 2, Mouse, Homolog of |
| 605158 | Peroxidasin, <i>Drosophila</i> , Homolog of |
| 600279 | Peroxisome Biogenesis Factor 19 |
| 608666 | Peroxisome Biogenesis Factor 26 |
| 600414 | Peroxisome Biogenesis Factor 5 |
| 601487 | Peroxisome Proliferator-Activated Receptor-Gamma |
| 171834 | Phosphatidylinositol 3-Kinase, Catalytic, Alpha |
| 611317 | Phosphatidylinositol 3-Kinase, Regulatory Subunit 5 |
| 603275 | Phosphatidylinositol 4-Phosphate 5-Kinase, Type I, Alpha |
| 171900 | Phosphoglucomutase 1 |
| 606879 | Phosphoglycerate Dehydrogenase |
| 608414 | Phospholipase C, Epsilon-1 |
| 612836 | Phospholipase C, ETA-2 |
| 600597 | Phospholipase C-Like 1 |
| 601785 | Phosphomannomutase 2 |
| 311870 | Phosphorylase Kinase, Muscle, Alpha-1 Subunit |
| 613629 | Piezo-Type Mechanosensitive Ion Channel Component 2 |
| 616065 | PILR-Alpha-Associated Neural Protein |
| 606702 | PKHD1 Gene |
| 607023 | Polo-Like Kinase 2 |
| 173910 | Polycystin 2 |
| 602670 | Polymerase, DNA, Epsilon-2 |
| 600150 | Potassium Channel, Calcium-Activated, Large Conductance, Subfamily M, Alpha Member 1 |
| 600937 | Potassium Channel, Inwardly Rectifying Subfamily J, Member 11 |

| OMIM# | Gene |
|--------|---|
| 603796 | Potassium Channel, Voltage-Gated, ISK-Related Subfamily, Member 2 |
| 607542 | Potassium Channel, Voltage-Gated, KQT-Like Subfamily, Member 1 |
| 601141 | Potassium Channel, Voltage-Gated, Shaker-Related Subfamily, Beta Member 1 |
| 176262 | Potassium Channel, Voltage-Gated, Shaker-Related Subfamily, Member 2 |
| 176265 | Potassium Channel, Voltage-Gated, Shaw-Related Subfamily, Member 4 |
| 152427 | Potassium Channel, Voltage-Gated, Subfamily H, Member 2 |
| 607604 | Potassium Channel, Voltage-Gated, Subfamily V, Member 2 |
| 173110 | POU Domain, Class 1, Transcription Factor 1 |
| 232000 | Propionyl-CoA Carboxylase, Alpha Subunit |
| 176801 | Prosaposin |
| 613858 | Protease, Serine, 56 |
| 612283 | Protein C |
| 177060 | Protein Kinase C Substrate, 80-kD, Heavy Chain |
| 607423 | Protein O-Mannosyltransferase 1 |
| 606630 | Protein Regulating Synaptic Membrane Exocytosis 2 |
| 600079 | Protein-Tyrosine Phosphatase, Nonreceptor-Type, 12 |
| 604283 | Proteoglycan 4 |
| 608309 | PTEN-Induced Putative Kinase 1 |
| 164050 | Purine Nucleoside Phosphorylase |
| 179035 | Pyrrrole-5-Carboxylate Reductase 1 |
| 602536 | RAB3 GTPase-Activating Protein, Catalytic Subunit |
| 614093 | RAB-Interacting Lysosomal Protein-Like 2 |
| 606462 | Rad21, <i>S. Pombe</i> , Homolog of |
| 179617 | RAD51, <i>S. Cerevisiae</i> , Homolog of |
| 605667 | Ral Guanine Nucleotide Dissociation Stimulator-Like 1 |
| 603868 | Ras-Associated Protein RAB27A |
| 164761 | Rearranged during Transfection Protooncogene |
| 600514 | Reelin |
| 607814 | Regulator of G Protein Signaling 9-Binding Protein |
| 180069 | Retinal Pigment Epithelium-Specific Protein, 65-kD |
| 180090 | Retinaldehyde-Binding Protein 1 |
| 605446 | Retinitis Pigmentosa GTPase Regulator-Interacting Protein |
| 608830 | Retinol Dehydrogenase 12 |
| 611908 | RFT1, <i>S. Cerevisiae</i> , Homolog of |
| 614902 | RHO GTPase-Activating Protein 33 |
| 561000 | Ribosomal RNA, Mitochondrial, 12S |

| OMIM# | Gene |
|--------|---|
| 609247 | Ring Finger Protein 13 |
| 613768 | RING Finger Protein 213 |
| 610436 | Rotatin |
| 602430 | Roundabout, Drosophila, Homolog of, 1 |
| 608630 | Roundabout, Drosophila, Homolog of, 3 |
| 603937 | RP1 GENE |
| 608581 | RP1-Like Protein 1 |
| 610937 | RPGRIP1-Like |
| 114210 | S100 Calcium-Binding Protein A4 |
| 600119 | Sarcoglycan, Alpha |
| 607444 | SBDS Gene |
| 181590 | SCL/TAL1-Interrupting Locus |
| 612854 | SEC16, S. Cerevisiae, Homolog of, A |
| 610511 | SEC23, S. Cerevisiae, Homolog of, A |
| 607186 | SEC24-Related Gene Family, Member D |
| 131210 | Selectin E |
| 608465 | Senataxin |
| 107400 | SERPIN Peptidase Inhibitor, Clade A, Member 1 |
| 173360 | Serpin Peptidase Inhibitor, Clade E (Nexin, Plasminogen Activator Inhibitor Type 1), Member 1 |
| 172860 | Serpin Peptidase Inhibitor, Clade F, Member 1 |
| 600943 | Serpin Peptidase Inhibitor, Clade H, Member 1 |
| 603560 | Set-Binding Factor 1 |
| 602212 | SHAH E3 Ubiquitin Protein Ligase Family, Member 1 |
| 600555 | Signal Transducer and Activator of Transcription 1 |
| 608005 | SIL1, S. Cerevisiae, Homolog of |
| 606326 | Sine Oculis Homeobox, Drosophila, Homolog of, 6 |
| 610492 | SLAIN Motif Family, Member 2 |
| 613176 | SMG9 Nonsense-Mediated mRNA Decay Factor |
| 600228 | Sodium Channel, Nonvoltage-Gated 1, Alpha Subunit |
| 606145 | Solute Carrier Family 2 (Facilitated Glucose Transporter), Member 10 |
| 603377 | Solute Carrier Family 22 (Organic Cation Transporter), Member 5 |
| 613698 | Solute Carrier Family 25 (Carnitine/Acylcarnitine Translocase), Member 20 |
| 603861 | Solute Carrier Family 25 (Mitochondrial Carrier, Ornithine Transporter), Member 15 |
| 610823 | Solute Carrier Family 25, Member 42 |
| 126650 | Solute Carrier Family 26, Member 3 |
| 104614 | Solute Carrier Family 3 (Cystine, Dibasic, and Neutral Amino Acid Transporter), Member 1 |

| OMIM# | Gene |
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| 314375 | Solute Carrier Family 35 (UDP-Galactose Transporter), Member 2 |
| 608736 | Solute Carrier Family 39 (Zinc Transporter), Member 14 |
| 610206 | Solute Carrier Family 4 (Sodium Borate Cotransporter), Member 11 |
| 605763 | Solute Carrier Family 45, Member 1 |
| 126455 | Solute Carrier Family 6 (Neurotransmitter Transporter, Dopamine), Member 3 |
| 609868 | Spermatogenesis-Associated Protein 7 |
| 600617 | Steroidogenic Acute Regulatory Protein |
| 610745 | Stimulated by Retinoic Acid 6 |
| 606887 | Sulfite Oxidase |
| 600354 | Survival of Motor Neuron 1, Telomeric |
| 601627 | Survival of Motor Neuron 2, Centromeric |
| 606622 | SWI/SNF-Related, Matrix-Associated, Actin-Dependent Regulator of Chromatin, Subfamily A-Like Protein 1 |
| 600322 | Synaptosomal-Associated Protein, 25-kD |
| 613528 | Synaptotagmin 9 |
| 605014 | Syntaxin 11 |
| 601717 | Syntaxin-Binding Protein 2 |
| 601397 | T Brachyury, Mouse, Homolog of |
| 602955 | TAF6 RNA Polymerase II, TATA Box-Binding Protein-Associated Factor, 80-KD |
| 600075 | TATA Box-Binding Protein |
| 616899 | TBC1 Domain-Containing Kinase |
| 613846 | Tectonic Family, Member 2 |
| 610083 | Teneurin Transmembrane Protein 3 |
| 608132 | Tetratricopeptide Repeat Domain 8 |
| 607709 | Tight Junction Proetin 2 |
| 607601 | TIR Domain-Containing Adaptor Molecule 1 |
| 611236 | TMEM38B Gene |
| 603028 | Toll-Like Receptor 2 |
| 603030 | Toll-Like Receptor 4 |
| 610005 | TRAF2- and NCK-Interacting Kinase |
| 607043 | TRAF3-Interacting Protein 2 |
| 602063 | Transaldolase 1 |
| 602228 | Transcription Factor 7-Like 2 |
| 612763 | Transcriptional Adaptor 1-Like |
| 610322 | Transcriptional Regulating Factor 1 |
| 590015 | Transfer RNA, Mitochondrial, Aspartic Acid |
| 590035 | Transfer RNA, Mitochondrial, Glycine |
| 590055 | Transfer RNA, Mitochondrial, Leucine, 2 |

| OMIM# | Gene |
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| 590080 | Transfer RNA, Mitochondrial, Serine, 1 |
| 602630 | Transforming Growth Factor-Beta-Induced Factor |
| 190195 | Transglutaminase 1 |
| 604775 | Transient Receptor Potential Cation Channel, Subfamily A, Member 1 |
| 603576 | Transient Receptor Potential Cation Channel, Subfamily M, Member 1 |
| 614949 | Transmembrane Protein 231 |
| 614423 | Transmembrane Protein 237 |
| 609884 | Transmembrane Protein 67 |
| 616830 | Transport and Golgi Organization 2, Drosophila, Homolog of |
| 611669 | tRNA Methyltransferase 1, S. Cerevisiae, Homolog of |
| 608756 | tRNA Splicing Endonuclease 15, S. cerevisiae, Homolog of |
| 602280 | Tubby-Like Protein 1 |
| 604934 | Tubulin-Specific Chaperone E |
| 602643 | Tumor Necrosis Factor Receptor Superfamily, Member 11B |
| 191170 | Tumor Protein p53 |
| 606933 | Tyrosinase |
| 115501 | Tyrosinase-Related Protein 1 |
| 607198 | Tyrosyl-DNA Phosphodiesterase 1 |
| 611632 | UbiA Prenyltransferase Domain-Containing Protein 1 |
| 603753 | Ubiquitination Factor E4A |
| 610554 | Ubiquitin-Fold Modifier-Conjugating Enzyme 1 |
| 605981 | Ubiquitin-Protein Ligase E3 Component N-Recognin 1 |
| 604725 | Ubiquitin-Specific Protease 2 |
| 191740 | UDP-Glycosyltransferase 1 Family, Polypeptide A1 |
| 605242 | USH1C Gene |
| 185880 | Vesicle-Associated Membrane Protein 1 |
| 601769 | Vitamin D Receptor |
| 608547 | Vitamin K Epoxide Reductase Complex, Subunit 1 |
| 300392 | WAS Gene |
| 608151 | WD Repeat-Containing Protein 19 |
| 609226 | WD Repeat-Containing Protein 45B |
| 613583 | WD Repeat-Containing Protein 62 |
| 606201 | WFS1 Gene |
| 601906 | Wingless-Type MMTV Integration Site Family, Member 10B |
| 601570 | Wingless-Type MMTV Integration Site Family, Member 7A |
| 603400 | WNT1-Inducible Signaling Pathway Protein 3 |
| 605131 | WW Domain-Containing Oxidoreductase |
| 194360 | X-Ray Repair, Complementing Defective, in Chinese Hamster, 1 |

| OMIM# | Gene |
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| 600375 | X-Ray Repair, Complementing Defective, in Chinese Hamster, 2 |
| 600675 | X-Ray Repair, Complementing Defective, in Chinese Hamster, 3 |
| 194364 | X-Ray Repair, Complementing Defective, in Chinese Hamster, 5 |
| 602956 | X-Ray Repair, Complementing Defective, in Chinese Hamster, 9 |
| 616443 | Zinc Finger, MYM-Type 5 |