

Supplementary Materials

EIF2 Signaling : AdhervsSusp85_IPA : Expr Log Ratio

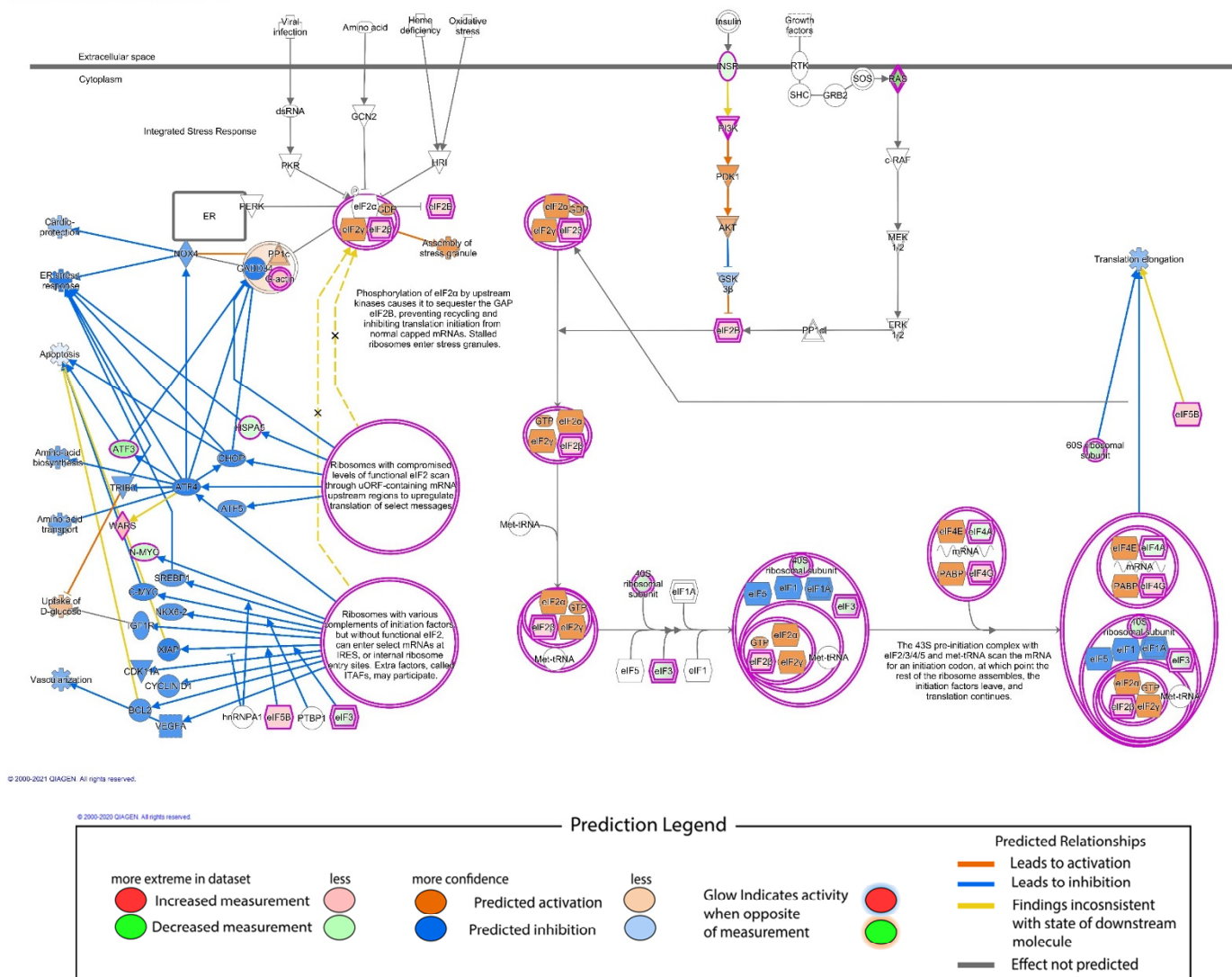


Figure S1. Adherent vs. suspension EIF2 signaling pathway. Graph was produced using Ingenuity Pathway Analysis (IPA, Qiagen, Hilden Germany).

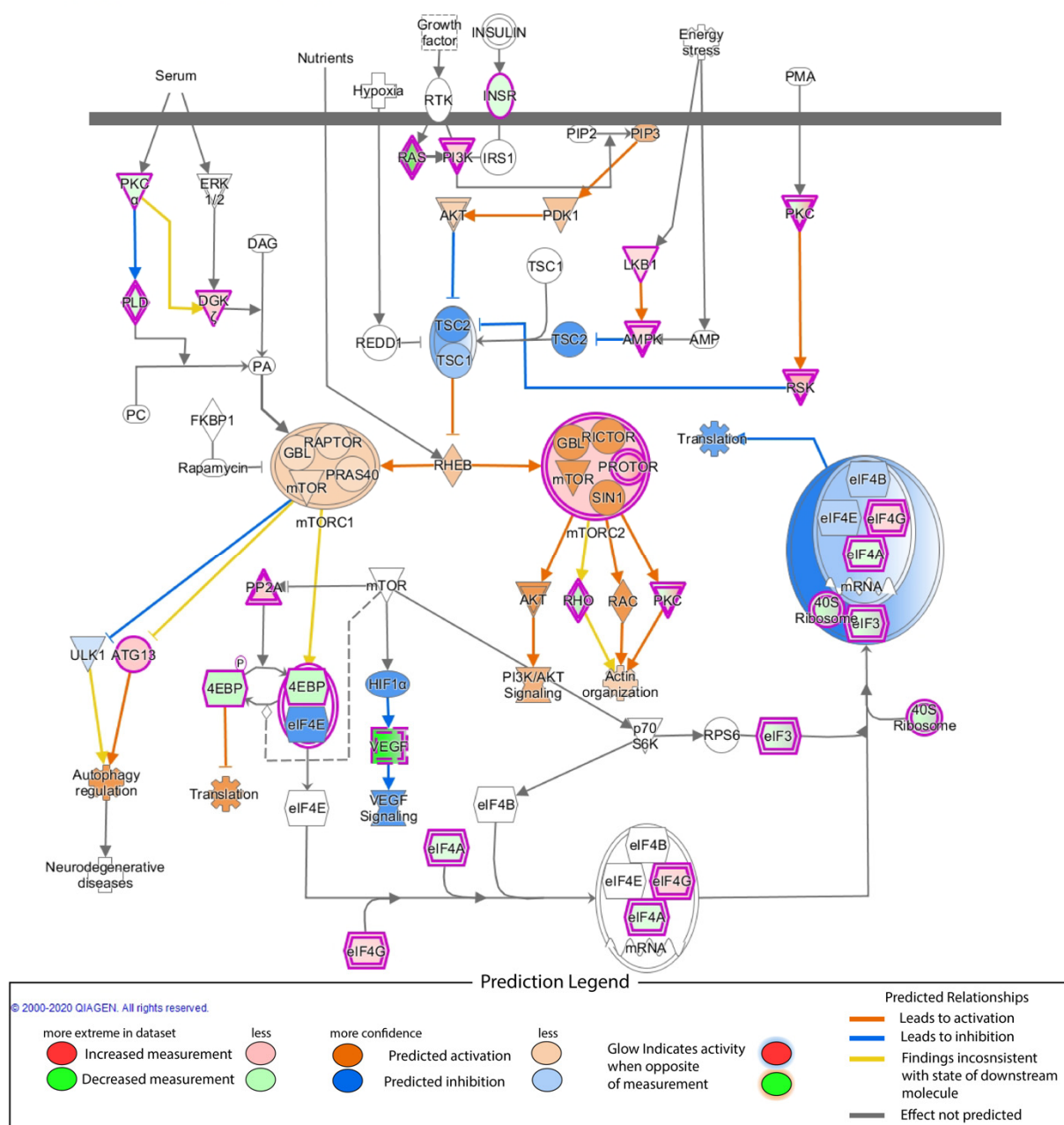


Figure S2. Adherent vs. suspension mTor signaling pathway. Graph was produced using Ingenuity Pathway Analysis (IPA, Qiagen, Hilden Germany).

Leukocyte Extravasation Signaling : AdherensSusp95 IPA : Expr Log Ratio

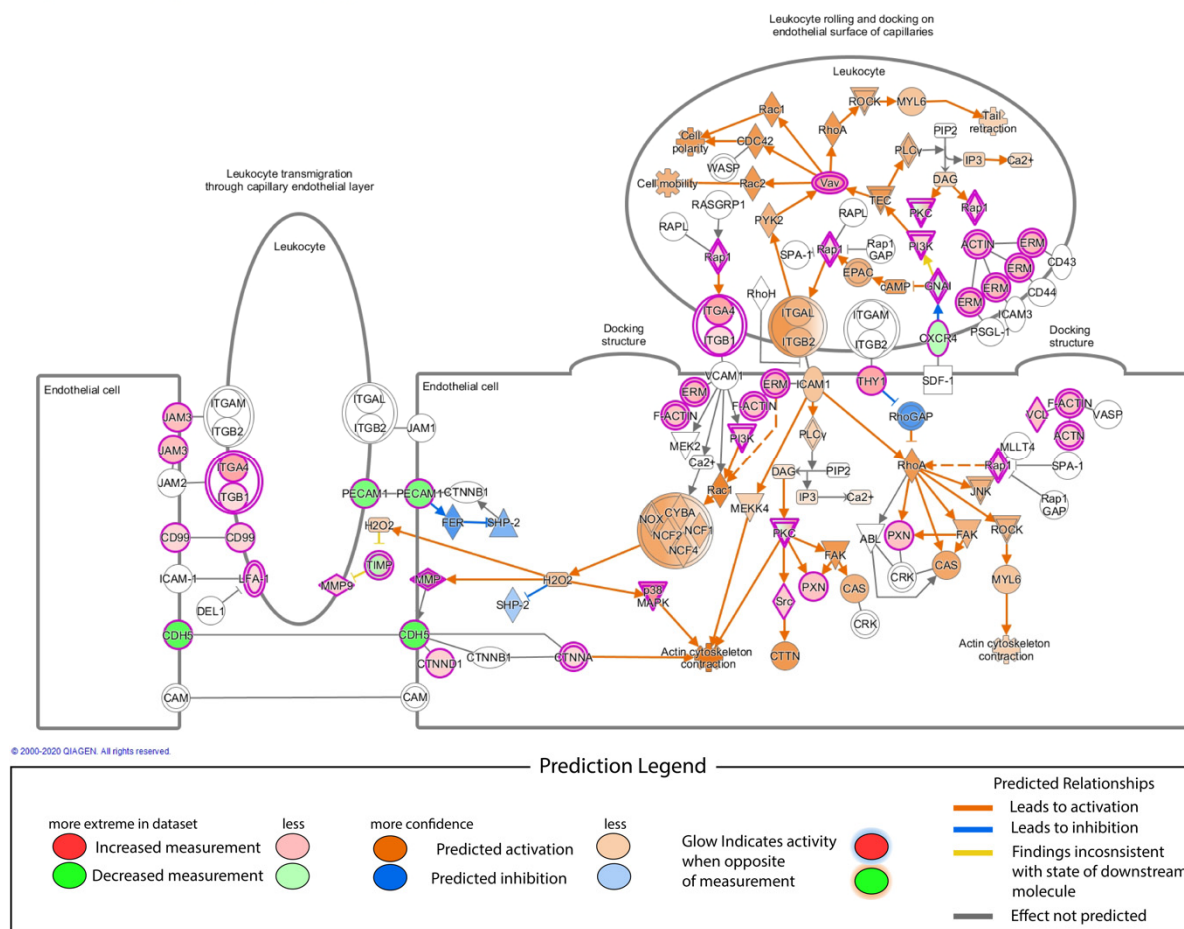


Figure S3. Adherent vs. suspension leukocyte extravation signaling pathway. Graph was produced using Ingenuity Pathway Analysis (IPA, Qiagen, Hilden Germany).

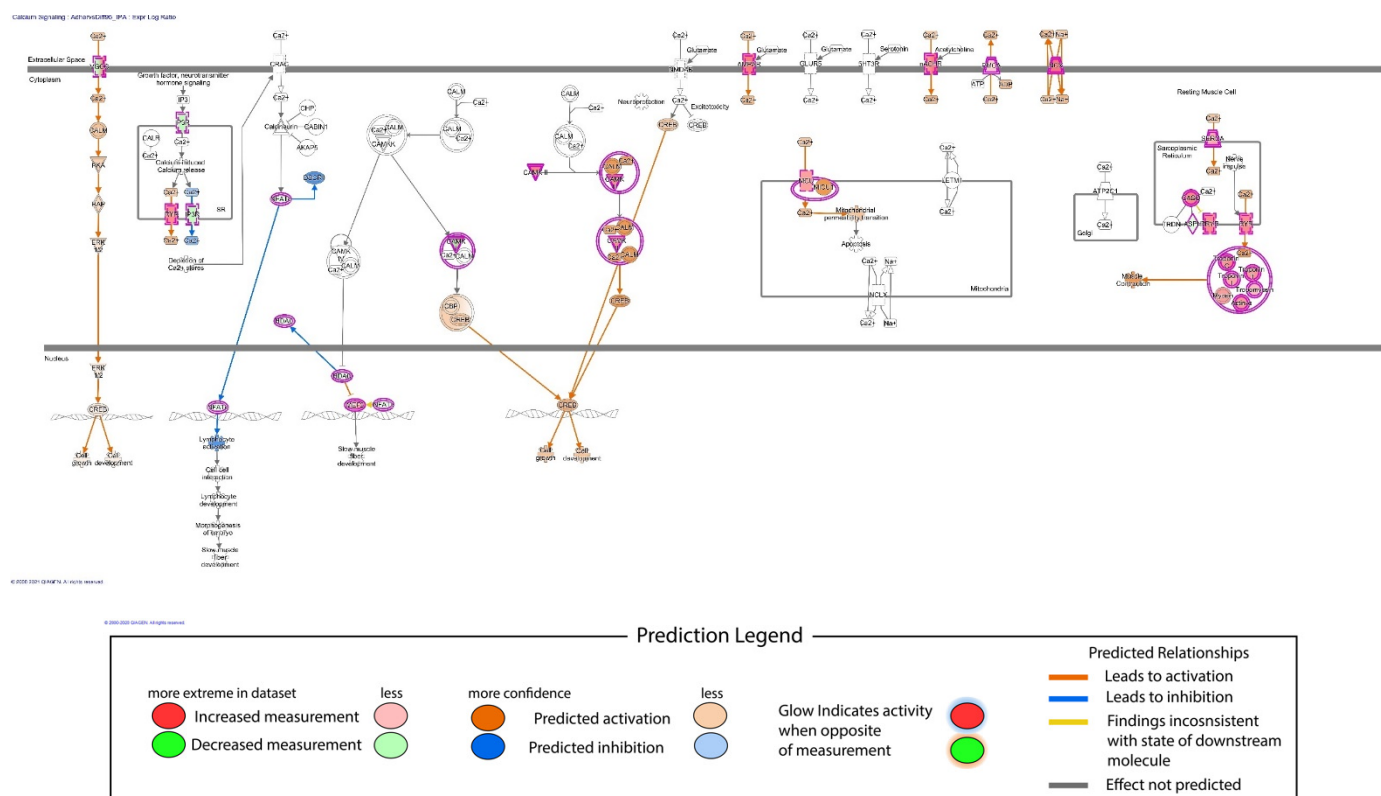
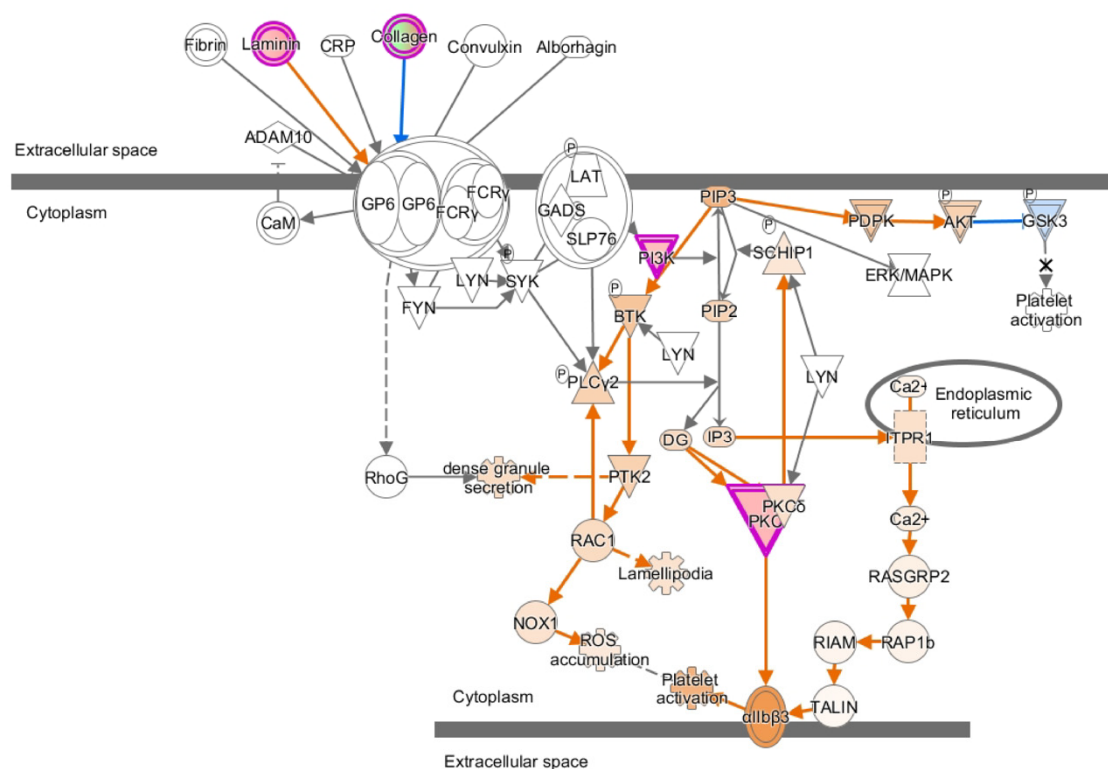


Figure S4. Adherent vs. differentiating calcium signaling pathway. Graph was produced using Ingenuity Pathway Analysis (IPA, Qiagen, Hilden Germany).

GP6 Signaling Pathway : DiffvsAdher95 IPA : Expr Log Ratio

GPVI is a member of the immunoglobulin superfamily, it is expressed in platelets and their precursor megakaryocytes. It serves as the major signaling receptor for collagen, which leads to the platelet activation and thrombus formation.



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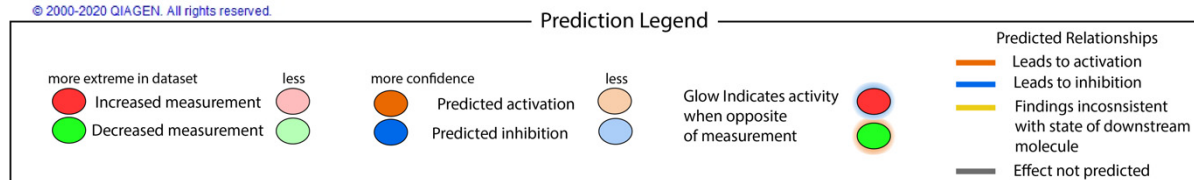
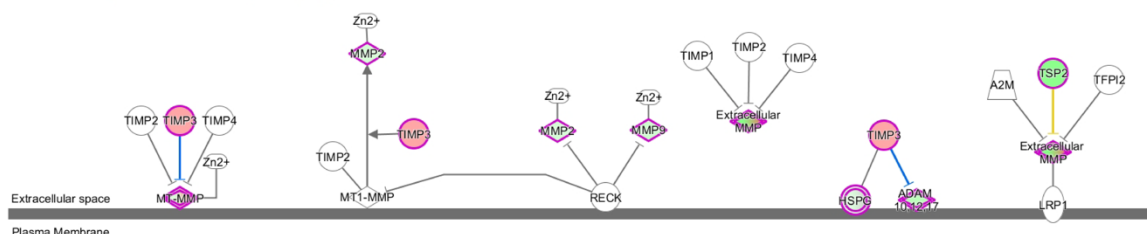
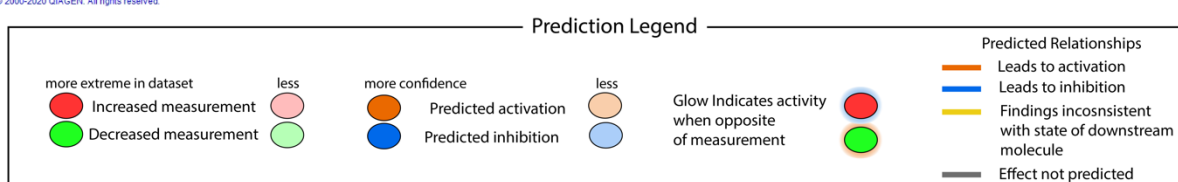


Figure S5. Adherent vs. differentiating GP6 signaling pathway. Graph was produced using Ingenuity Pathway Analysis (IPA, Qiagen, Hilden Germany).

Inhibition of Matrix Metalloproteases : DiffvsAdher95 IPA : Expr Log Ratio



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Integrin Signaling : DiffvsSusp95 IPA : Expr Log Ratio



Figure S7. Differentiating vs. suspension integrin signaling pathway. Graph was produced using Ingenuity Pathway Analysis (IPA, Qiagen, Hilden Germany).

Actin Cytoskeleton Signaling : DiffvsSusp95_IPA : Expr Log Ratio

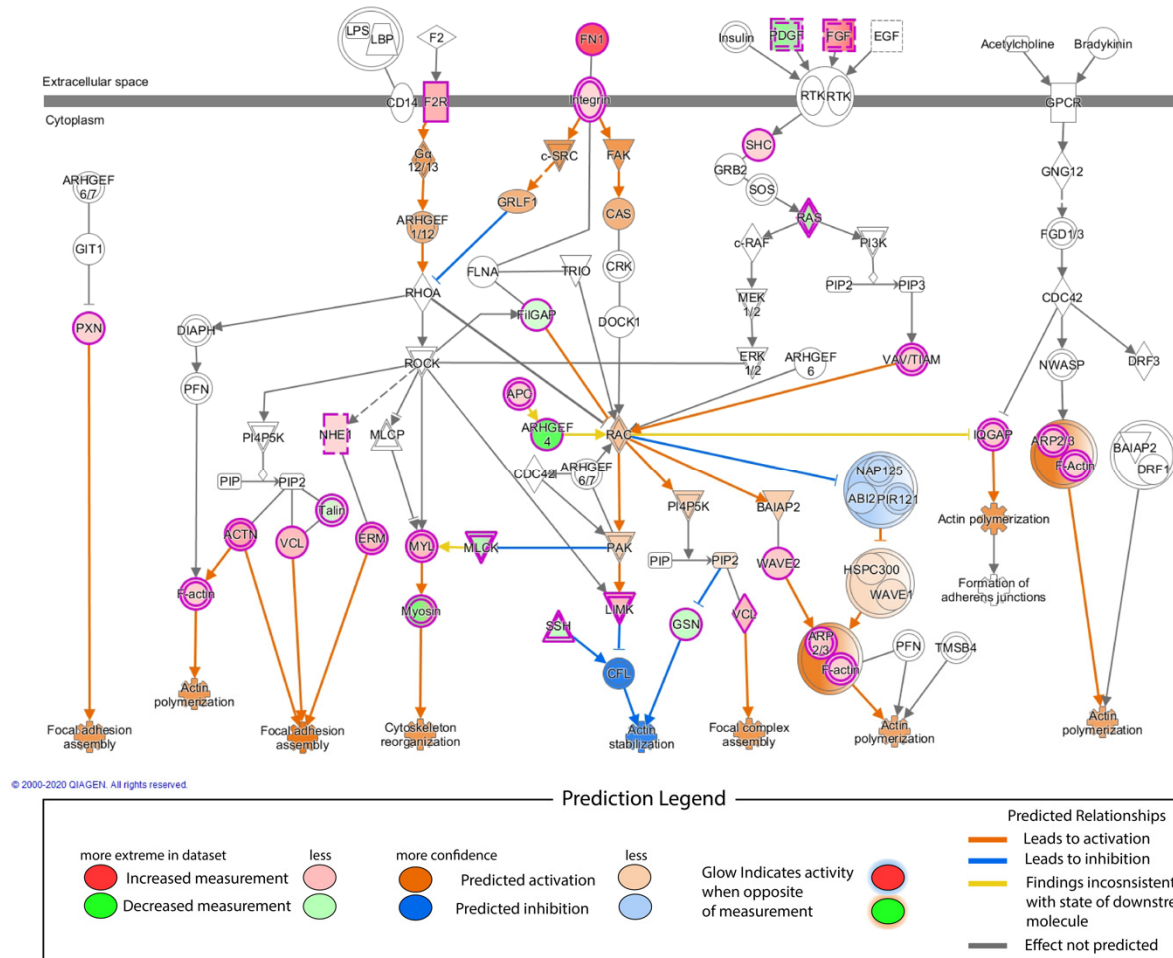
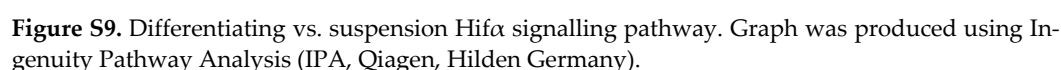


Figure S8. Differentiating vs. suspension actin cytoskeletal signaling pathway. Graph was produced using Ingenuity Pathway Analysis (IPA, Qiagen, Hilden Germany).



| Symbol | Description | RPKM (Adherent) | RPKM (Differentiating) | M | D | P-value |
|--------|---|-----------------|------------------------|------|--------|---------|
| ABCB6 | ATP binding cassette subfamily B member 6 (Langeris blood group) [Source:HGNC Symbol;Acc:HGNC:47] | 48,51 | 22,65 | 1,10 | 25,87 | 0,05 |
| ABLM3 | actin binding LIM protein family member 3 [Source:HGNC Symbol;Acc:HGNC:29132] | 319,29 | 72,87 | 2,13 | 246,42 | 0,01 |
| ABRA | actin binding Rho activating protein [Source:HGNC Symbol;Acc:HGNC:30655] | 24,85 | 4,71 | 2,40 | 20,15 | 0,02 |
| ABRACL | ABRA C-terminal like [Source:NCBI gene;Acc:100549256] | 12,53 | 32,67 | 1,38 | 20,13 | 0,04 |
| ACAA2 | acetyl-CoA acyltransferase 2 [Source:HGNC Symbol;Acc:HGNC:83] | 279,95 | 87,76 | 1,67 | 192,19 | 0,02 |
| ACAN | aggrecan [Source:HGNC Symbol;Acc:HGNC:319] | 0,05 | 92,74 | 4 | 92,69 | 0,00 |
| ACAP3 | ArfGAP with coiled-coil, ankyrin repeat and PH domains 3 [Source:HGNC Symbol;Acc:HGNC:16754] | 5,48 | 20,32 | 1,89 | 14,84 | 0,05 |
| ACKR3 | atypical chemokine receptor 3 [Source:NCBI gene;Acc:100546352] | 2,22 | 162,56 | 6,19 | 160,34 | 0,00 |
| ACSL1 | acyl-CoA synthetase long chain family member 1 [Source:NCBI gene;Acc:100546186] | 58,44 | 138,53 | 1,25 | 80,09 | 0,03 |
| ACTC1 | actin, alpha cardiac muscle 1 [Source:NCBI gene;Acc:100303693] | 10717,90 | 2498,12 | 2,10 | 8 | 0,01 |
| ACTG2 | actin, gamma-enteric smooth muscle [Source:NCBI gene;Acc:100551088] | 833,76 | 1724,45 | 1,05 | 890,70 | 0,04 |
| ACTN2 | actinin alpha 2 [Source:HGNC Symbol;Acc:HGNC:164] | 1443,73 | 428,39 | 1,75 | 5 | 0,02 |

| | | | | | | |
|----------|---|---------|--------|-------|---------|------|
| ACVRL1 | activin A receptor like type 1 [Source:HGNC Symbol;Acc:HGNC:175] | 1,36 | 33,33 | 4,62 | 31,98 | 0,01 |
| ADAM12 | ADAM metallopeptidase domain 12 [Source:HGNC Symbol;Acc:HGNC:190] | 14,81 | 128,90 | 3,12 | 114,08 | 0,00 |
| ADAM33 | ADAM metallopeptidase domain 33 [Source:HGNC Symbol;Acc:HGNC:15478] | 165,23 | 68,10 | 1,28 | 97,13 | 0,03 |
| ADAM8 | ADAM metallopeptidase domain 8 [Source:HGNC Symbol;Acc:HGNC:215] | 215,75 | 455,19 | 1,08 | 239,43 | 0,04 |
| ADAMTS1 | ADAM metallopeptidase with thrombospondin type 1 motif 1 [Source:HGNC Symbol;Acc:HGNC:217] | 20,40 | 68,82 | 1,75 | 48,42 | 0,02 |
| ADAMTS15 | ADAM metallopeptidase with thrombospondin type 1 motif 15 [Source:HGNC Symbol;Acc:HGNC:16305] | 0,60 | 96,73 | 7,34 | 96,13 | 0,00 |
| ADAMTS2 | ADAM metallopeptidase with thrombospondin type 1 motif 2 [Source:HGNC Symbol;Acc:HGNC:218] | 14,11 | 39,59 | 1,49 | 25,48 | 0,03 |
| ADAMTS9 | ADAM metallopeptidase with thrombospondin type 1 motif 9 [Source:HGNC Symbol;Acc:HGNC:13202] | 2,39 | 22,76 | 3,25 | 20,37 | 0,02 |
| ADCY2 | adenylate cyclase 2 [Source:HGNC Symbol;Acc:HGNC:233] | 49,65 | 18,55 | 1,42 | 31,10 | 0,03 |
| ADCY9 | adenylate cyclase 9 [Source:HGNC Symbol;Acc:HGNC:240] | 619,09 | 200,27 | 1,63 | 418,82 | 0,02 |
| ADD3 | adducin 3 [Source:NCBI gene;Acc:100547330] | 23,93 | 63,51 | 1,41 | 39,58 | 0,03 |
| ADGRD2 | adhesion G protein-coupled receptor D2 [Source:HGNC Symbol;Acc:HGNC:18651] | 85,09 | 7,92 | 3,43 | 77,17 | 0,00 |
| ADGRG1 | adhesion G protein-coupled receptor G1 [Source:HGNC Symbol;Acc:HGNC:4512] | 200,18 | 32,17 | 2,64 | 168,01 | 0,00 |
| ADK | adenosine kinase [Source:HGNC Symbol;Acc:HGNC:257] | 136,26 | 26,69 | 2,35 | 109,57 | 0,01 |
| ADORA1 | adenosine A1 receptor [Source:HGNC Symbol;Acc:HGNC:262] | 131,21 | 23,25 | 2,50 | 107,95 | 0,01 |
| ADSS2 | adenylosuccinate synthase 2 [Source:HGNC Symbol;Acc:HGNC:292] | 32,56 | 81,34 | 1,32 | 48,78 | 0,03 |
| AFAP1L1 | actin filament associated protein 1 like 1 [Source:HGNC Symbol;Acc:HGNC:26714] | 370,67 | 66,66 | 2,48 | 304,01 | 0,01 |
| AFDN | afadin, adherens junction formation factor [Source:HGNC Symbol;Acc:HGNC:7137] | 169,41 | 50,66 | 1,74 | 118,75 | 0,02 |
| AGL | amylase-1, 6-glucosidase, 4-alpha-glucanotransferase [Source:HGNC Symbol;Acc:HGNC:321] | 101,64 | 32,45 | 1,65 | 69,19 | 0,02 |
| AGRN | agrin [Source:HGNC Symbol;Acc:HGNC:329] | 16,55 | 1,44 | 3,52 | 15,11 | 0,03 |
| AHCY | adenosylhomocysteinase [Source:HGNC Symbol;Acc:HGNC:343] | 976,09 | 466,76 | 1,06 | 509,33 | 0,04 |
| AIF1L | allograft inflammatory factor 1 like [Source:HGNC Symbol;Acc:HGNC:28904] | 84,71 | 6,59 | 3,68 | 78,12 | 0,00 |
| AK4 | adenylate kinase 4 [Source:NCBI gene;Acc:100538743] | 35,92 | 88,15 | 1,30 | 52,22 | 0,03 |
| AKAP12 | A-kinase anchoring protein 12 [Source:HGNC Symbol;Acc:HGNC:370] | 146,29 | 25,30 | 2,53 | 120,99 | 0,00 |
| AKAP13 | A-kinase anchoring protein 13 [Source:HGNC Symbol;Acc:HGNC:371] | 57,30 | 25,08 | 1,19 | 32,22 | 0,04 |
| AKR1D1 | aldo-keto reductase family 1 member D1 [Source:NCBI gene;Acc:100547967] | 0,38 | 480,65 | 10,31 | 480,27 | 0,00 |
| ALAS1 | 5'-aminolevulinate synthase 1 [Source:NCBI gene;Acc:100547950] | 1264,34 | 453,91 | 1,48 | 810,43 | 0,02 |
| ALDH1A3 | aldehyde dehydrogenase 1 family member A3 [Source:HGNC Symbol;Acc:HGNC:409] | 5,86 | 47,28 | 3,01 | 41,42 | 0,00 |
| ALDH4A1 | aldehyde dehydrogenase 4 family member A1 [Source:HGNC Symbol;Acc:HGNC:406] | 84,92 | 27,63 | 1,62 | 57,29 | 0,02 |
| ALDH7A1 | aldehyde dehydrogenase 7 family member A1 [Source:HGNC Symbol;Acc:HGNC:877] | 78,57 | 35,77 | 1,14 | 42,81 | 0,04 |
| ALPK3 | alpha kinase 3 [Source:HGNC Symbol;Acc:HGNC:17574] | 148,41 | 25,30 | 2,55 | 123,11 | 0,00 |
| ALPL | alkaline phosphatase, biomineralization associated [Source:HGNC Symbol;Acc:HGNC:438] | 7,76 | 120,65 | 3,96 | 112,89 | 0,00 |
| AMOTL2 | angiomotin like 2 [Source:HGNC Symbol;Acc:HGNC:17812] | 349,78 | 156,36 | 1,16 | 193,42 | 0,04 |
| AMPD3 | adenosine monophosphate deaminase 3 [Source:HGNC Symbol;Acc:HGNC:470] | 74,18 | 21,37 | 1,80 | 52,81 | 0,02 |
| ANGPT1 | angiopoietin 1 [Source:HGNC Symbol;Acc:HGNC:484] | 2,71 | 18,77 | 2,79 | 16,06 | 0,03 |
| ANGPTL4 | angiopoietin like 4 [Source:HGNC Symbol;Acc:HGNC:16039] | 49,16 | 100,77 | 1,04 | 51,61 | 0,05 |
| ANKRD1 | ankyrin repeat domain 1 [Source:NCBI gene;Acc:100538633] | 2134,62 | 420,19 | 2,34 | 1714,42 | 0,01 |
| ANKRD10 | ankyrin repeat domain 10 [Source:HGNC Symbol;Acc:HGNC:20265] | 218,57 | 103,48 | 1,08 | 115,09 | 0,04 |
| ANKRD2 | ankyrin repeat domain 2 [Source:HGNC Symbol;Acc:HGNC:495] | 178,47 | 68,44 | 1,38 | 110,04 | 0,03 |
| ANLN | anillin actin binding protein [Source:HGNC Symbol;Acc:HGNC:14082] | 87,74 | 24,81 | 1,82 | 62,94 | 0,02 |
| ANO1 | anoctamin 1 [Source:HGNC Symbol;Acc:HGNC:21625] | 42,71 | 11,63 | 1,88 | 31,08 | 0,02 |
| ANO2 | anoctamin 2 [Source:HGNC Symbol;Acc:HGNC:1183] | 33,37 | 7,36 | 2,18 | 26,01 | 0,02 |
| ANOS1 | anosmin 1 [Source:HGNC Symbol;Acc:HGNC:6211] | 8,68 | 30,78 | 1,83 | 22,10 | 0,03 |

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|----------|---|--------|---------|------|---------|------|
| ANXA7 | annexin A7 [Source:HGNC Symbol;Acc:HGNC:545] | 233,06 | 109,35 | 1,09 | 123,71 | 0,04 |
| AP3M1 | adaptor related protein complex 3 subunit mu 1 [Source:HGNC Symbol;Acc:HGNC:569] | 250,81 | 110,57 | 1,18 | 140,23 | 0,03 |
| APOA1 | apolipoprotein A1 [Source:NCBI gene;Acc:100542499] | 80,20 | 7198,14 | 6,49 | 7117,94 | 0,00 |
| APOBEC2 | apolipoprotein B mRNA editing enzyme catalytic subunit 2 [Source:HGNC Symbol;Acc:HGNC:605] | 129,64 | 54,98 | 1,24 | 74,65 | 0,03 |
| AQP3 | aquaporin 3 (Gill blood group) [Source:HGNC Symbol;Acc:HGNC:636] | 1,36 | 82,50 | 5,93 | 81,14 | 0,00 |
| ARFGAP3 | ADP ribosylation factor GTPase activating protein 3 [Source:NCBI gene;Acc:100550221] | 86,44 | 200,05 | 1,21 | 113,61 | 0,03 |
| ARHGAP24 | Rho GTPase activating protein 24 [Source:HGNC Symbol;Acc:HGNC:25361] | 73,47 | 33,39 | 1,14 | 40,09 | 0,04 |
| ARHGAP40 | Rho GTPase activating protein 40 [Source:HGNC Symbol;Acc:HGNC:16226] | 70,43 | 17,39 | 2,02 | 53,05 | 0,01 |
| ARHGEF17 | Rho guanine nucleotide exchange factor 17 [Source:HGNC Symbol;Acc:HGNC:21726] | 185,04 | 87,76 | 1,08 | 97,28 | 0,04 |
| ARHGEF3 | Rho guanine nucleotide exchange factor 3 [Source:NCBI gene;Acc:100546667] | 37,98 | 8,58 | 2,15 | 29,40 | 0,01 |
| ARL6IP5 | ADP ribosylation factor like GTPase 6 interacting protein 5 [Source:HGNC Symbol;Acc:HGNC:16937] | 844,45 | 412,66 | 1,03 | 431,79 | 0,05 |
| ARL8A | ADP ribosylation factor like GTPase 8A [Source:HGNC Symbol;Acc:HGNC:25192] | 96,05 | 43,24 | 1,15 | 52,80 | 0,04 |
| ARPC1B | actin related protein 2/3 complex subunit 1B [Source:NCBI gene;Acc:100539832] | 138,10 | 316,43 | 1,20 | 178,33 | 0,03 |
| ARPP21 | cAMP regulated phosphoprotein 21 [Source:HGNC Symbol;Acc:HGNC:16968] | 144,07 | 19,88 | 2,86 | 124,19 | 0,00 |
| ARRDC1 | arrestin domain containing 1 [Source:HGNC Symbol;Acc:HGNC:28633] | 47,43 | 16,78 | 1,50 | 30,65 | 0,03 |
| ARVCF | ARVCF delta catenin family member [Source:NCBI gene;Acc:100547080] | 60,23 | 21,04 | 1,52 | 39,19 | 0,03 |
| ASAP3 | ArfGAP with SH3 domain, ankyrin repeat and PH domain 3 [Source:HGNC Symbol;Acc:HGNC:14987] | 9,17 | 36,88 | 2,01 | 27,70 | 0,02 |
| ASB5 | ankyrin repeat and SOCS box containing 5 [Source:HGNC Symbol;Acc:HGNC:17180] | 553,60 | 116,61 | 2,25 | 436,99 | 0,01 |
| ASPH | aspartate beta-hydroxylase [Source:HGNC Symbol;Acc:HGNC:757] | 98,98 | 202,26 | 1,03 | 103,28 | 0,05 |
| ASPM | abnormal spindle microtubule assembly [Source:HGNC Symbol;Acc:HGNC:19048] | 42,05 | 10,52 | 2,00 | 31,53 | 0,02 |
| ATOH8 | atonal bHLH transcription factor 8 [Source:HGNC Symbol;Acc:HGNC:24126] | 73,31 | 14,23 | 2,37 | 59,08 | 0,01 |
| ATP1A1 | ATPase Na+/K+ transporting subunit alpha 1 [Source:HGNC Symbol;Acc:HGNC:799] | 993,40 | 419,42 | 1,24 | 573,98 | 0,03 |
| ATP2A2 | ATPase sarcoplasmic/endoplasmic reticulum Ca2+ transporting 2 [Source:HGNC Symbol;Acc:HGNC:812] | 664,02 | 224,41 | 1,57 | 439,61 | 0,02 |
| ATP2A3 | ATPase sarcoplasmic/endoplasmic reticulum Ca2+ transporting 3 [Source:HGNC Symbol;Acc:HGNC:813] | 62,78 | 16,33 | 1,94 | 46,45 | 0,02 |
| ATP2B1 | ATPase plasma membrane Ca2+ transporting 1 [Source:HGNC Symbol;Acc:HGNC:814] | 98,33 | 47,95 | 1,04 | 50,38 | 0,05 |
| BAG2 | BCL2 associated athanogene 2 [Source:HGNC Symbol;Acc:HGNC:938] | 178,96 | 51,22 | 1,80 | 127,74 | 0,02 |
| BAG3 | BCL2 associated athanogene 3 [Source:HGNC Symbol;Acc:HGNC:939] | 325,91 | 152,71 | 1,09 | 173,20 | 0,04 |
| BDH1 | 3-hydroxybutyrate dehydrogenase 1 [Source:NCBI gene;Acc:100544505] | 208,37 | 54,93 | 1,92 | 153,45 | 0,01 |
| BIN1 | bridging integrator 1 [Source:HGNC Symbol;Acc:HGNC:1052] | 81,45 | 30,18 | 1,43 | 51,27 | 0,03 |
| BMP2K | BMP2 inducible kinase [Source:HGNC Symbol;Acc:HGNC:18041] | 64,25 | 26,47 | 1,28 | 37,78 | 0,03 |
| BMPER | BMP binding endothelial regulator [Source:HGNC Symbol;Acc:HGNC:24154] | 10,58 | 62,68 | 2,57 | 52,10 | 0,01 |
| BNIP3L | BCL2 interacting protein 3 like [Source:HGNC Symbol;Acc:HGNC:1085] | 206,80 | 441,12 | 1,09 | 234,32 | 0,04 |
| BOC | BOC cell adhesion associated, oncogene regulated [Source:HGNC Symbol;Acc:HGNC:17173] | 58,06 | 122,75 | 1,08 | 64,69 | 0,04 |
| BPHL | biphenyl hydrolase like [Source:HGNC Symbol;Acc:HGNC:1094] | 95,29 | 33,50 | 1,51 | 61,79 | 0,02 |
| BSG | basigin (Ok blood group) [Source:NCBI gene;Acc:100538809] | 448,38 | 1441,41 | 1,68 | 993,03 | 0,02 |
| BST1 | bone marrow stromal cell antigen 1 [Source:HGNC Symbol;Acc:HGNC:1118] | 15,41 | 40,59 | 1,40 | 25,17 | 0,04 |
| BTBD11 | BTB domain containing 11 [Source:HGNC Symbol;Acc:HGNC:23844] | 59,53 | 24,36 | 1,29 | 35,16 | 0,03 |
| BTBD6 | BTB domain containing 6 [Source:HGNC Symbol;Acc:HGNC:19897] | 28,87 | 93,46 | 1,69 | 64,59 | 0,02 |
| BVES | blood vessel epicardial substance [Source:NCBI gene;Acc:100548587] | 168,11 | 39,59 | 2,09 | 128,52 | 0,01 |
| C12orf75 | chromosome 12 open reading frame 75 [Source:HGNC Symbol;Acc:HGNC:35164] | 32,88 | 97,61 | 1,57 | 64,73 | 0,02 |
| C1R | complement C1r [Source:NCBI gene;Acc:100549554] | 2,71 | 22,92 | 3,08 | 20,21 | 0,02 |
| C1S | complement C1s [Source:NCBI gene;Acc:100549400] | 5,43 | 79,18 | 3,87 | 73,75 | 0,00 |
| CA12 | carbonic anhydrase 12 [Source:HGNC Symbol;Acc:HGNC:1371] | 8,09 | 52,16 | 2,69 | 44,07 | 0,01 |

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|---------|---|---------|--------|------|--------|------|
| CACNA1S | calcium voltage-gated channel subunit alpha1 S [Source:HGNC Symbol;Acc:HGNC:1397] | 237,51 | 45,90 | 2,37 | 191,61 | 0,01 |
| CACNG1 | calcium voltage-gated channel auxiliary subunit gamma 1 [Source:NCBI gene;Acc:100544356] | 192,31 | 23,75 | 3,02 | 168,56 | 0,00 |
| CACNG4 | calcium voltage-gated channel auxiliary subunit gamma 4 [Source:HGNC Symbol;Acc:HGNC:1408] | 25,40 | 7,03 | 1,85 | 18,36 | 0,04 |
| CADM1 | cell adhesion molecule 1 [Source:HGNC Symbol;Acc:HGNC:5951] | 86,39 | 23,42 | 1,88 | 62,97 | 0,01 |
| CALD1 | caldesmon 1 [Source:HGNC Symbol;Acc:HGNC:1441] | 981,14 | 476,72 | 1,04 | 504,41 | 0,05 |
| CAMK1D | calcium/calmodulin dependent protein kinase ID [Source:HGNC Symbol;Acc:HGNC:19341] | 0,76 | 19,71 | 4,70 | 18,95 | 0,02 |
| CAMK2A | calcium/calmodulin dependent protein kinase II alpha [Source:HGNC Symbol;Acc:HGNC:1460] | 286,67 | 53,71 | 2,42 | 232,97 | 0,01 |
| CAP2 | cyclase associated actin cytoskeleton regulatory protein 2 [Source:NCBI gene;Acc:100548386] | 214,29 | 53,98 | 1,99 | 160,30 | 0,01 |
| CAPG | capping actin protein, gelsolin like [Source:HGNC Symbol;Acc:HGNC:1474] | 124,48 | 252,48 | 1,02 | 128,00 | 0,05 |
| CAPN11 | calpain 11 [Source:HGNC Symbol;Acc:HGNC:1478] | 1021,46 | 483,42 | 1,08 | 538,03 | 0,04 |
| CAPN15 | calpain 15 [Source:HGNC Symbol;Acc:HGNC:11182] | 115,53 | 40,59 | 1,51 | 74,94 | 0,02 |
| CAPN6 | calpain-5 [Source:NCBI gene;Acc:100540236] | 1,47 | 65,78 | 5,49 | 64,31 | 0,00 |
| CASKIN2 | CASK interacting protein 2 [Source:HGNC Symbol;Acc:HGNC:18200] | 60,23 | 11,57 | 2,38 | 48,66 | 0,01 |
| CASQ2 | calsequestrin 2 [Source:NCBI gene;Acc:100547249] | 619,69 | 116,05 | 2,42 | 503,64 | 0,01 |
| CASS4 | Cas scaffold protein family member 4 [Source:HGNC Symbol;Acc:HGNC:15878] | 233,22 | 51,33 | 2,18 | 181,90 | 0,01 |
| CASTOR2 | cytosolic arginine sensor for mTORC1 subunit 2 [Source:HGNC Symbol;Acc:HGNC:37073] | 70,43 | 25,30 | 1,48 | 45,13 | 0,03 |
| CAT | catalase [Source:HGNC Symbol;Acc:HGNC:1516] | 18,78 | 43,74 | 1,22 | 24,97 | 0,04 |
| CAV3 | caveolin 3 [Source:HGNC Symbol;Acc:HGNC:1529] | 382,56 | 108,58 | 1,82 | 273,98 | 0,01 |
| CAVIN4 | caveolae associated protein 4 [Source:NCBI gene;Acc:100549564] | 226,82 | 69,04 | 1,72 | 157,78 | 0,02 |
| CBR1 | carbonyl reductase 1 [Source:HGNC Symbol;Acc:HGNC:1548] | 29,30 | 64,84 | 1,15 | 35,53 | 0,04 |
| CCDC88C | coiled-coil domain containing 88C [Source:HGNC Symbol;Acc:HGNC:19967] | 381,91 | 66,00 | 2,53 | 315,91 | 0,00 |
| CCN3 | cellular communication network factor 3 [Source:NCBI gene;Acc:100542737] | 0,87 | 19,21 | 4,47 | 18,34 | 0,02 |
| CCN4 | cellular communication network factor 4 [Source:HGNC Symbol;Acc:HGNC:12769] | 2,60 | 75,41 | 4,86 | 72,81 | 0,00 |
| CCNH | cyclin H [Source:HGNC Symbol;Acc:HGNC:1594] | 41,73 | 18,60 | 1,17 | 23,12 | 0,05 |
| CD151 | CD151 molecule (Raph blood group) [Source:NCBI gene;Acc:100544864] | 288,68 | 127,51 | 1,18 | 161,17 | 0,03 |
| CD36 | CD36 molecule [Source:HGNC Symbol;Acc:HGNC:1663] | 1,19 | 33,89 | 4,83 | 32,69 | 0,01 |
| CDH11 | cadherin 11 [Source:HGNC Symbol;Acc:HGNC:1750] | 3,96 | 340,41 | 6,43 | 336,44 | 0,00 |
| CDH13 | cadherin 13 [Source:HGNC Symbol;Acc:HGNC:1753] | 169,52 | 74,86 | 1,18 | 94,66 | 0,04 |
| CDH2 | cadherin 2 [Source:NCBI gene;Acc:100542837] | 777,11 | 174,24 | 2,16 | 602,86 | 0,01 |
| CDH23 | cadherin related 23 [Source:HGNC Symbol;Acc:HGNC:13733] | 41,73 | 9,36 | 2,16 | 32,37 | 0,01 |
| CDK1 | cyclin dependent kinase 1 [Source:NCBI gene;Acc:100549676] | 65,44 | 28,18 | 1,22 | 37,26 | 0,04 |
| CDKN1B | cyclin dependent kinase inhibitor 1B [Source:HGNC Symbol;Acc:HGNC:1785] | 303,33 | 140,19 | 1,11 | 163,14 | 0,04 |
| CDR2 | cerebellar degeneration related protein 2 [Source:HGNC Symbol;Acc:HGNC:1799] | 28,22 | 74,03 | 1,39 | 45,81 | 0,03 |
| CELF2 | CUGBP Elav-like family member 2 [Source:NCBI gene;Acc:100538923] | 21,16 | 4,43 | 2,26 | 16,73 | 0,03 |
| CELSR1 | cadherin EGF LAG seven-pass G-type receptor 1 [Source:HGNC Symbol;Acc:HGNC:1850] | 68,53 | 20,98 | 1,71 | 47,55 | 0,02 |
| CENPF | centromere protein F [Source:NCBI gene;Acc:100551197] | 33,81 | 6,53 | 2,37 | 27,27 | 0,01 |
| CEP350 | centrosomal protein 350 [Source:HGNC Symbol;Acc:HGNC:24238] | 25,34 | 8,03 | 1,66 | 17,31 | 0,04 |
| CEP43 | FGFR1 oncogene partner [Source:HGNC Symbol;Acc:HGNC:17012] | 28,71 | 9,69 | 1,57 | 19,02 | 0,04 |
| CERCAM | cerebral endothelial cell adhesion molecule [Source:HGNC Symbol;Acc:HGNC:23723] | 148,84 | 442,06 | 1,57 | 293,22 | 0,02 |
| CHL1 | cell adhesion molecule L1 like [Source:HGNC Symbol;Acc:HGNC:1939] | 11,12 | 186,37 | 4,07 | 175,25 | 0,00 |
| CHN1 | chimerin 1 [Source:HGNC Symbol;Acc:HGNC:1943] | 79,88 | 32,22 | 1,31 | 47,65 | 0,03 |

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|------------|---|----------|----------|------|--------|------|
| CHRD | chordin like 2 [Source:NCBI gene;Acc:100551248] | 2,28 | 21,70 | 3,25 | 19,43 | 0,02 |
| CHRNA1 | cholinergic receptor nicotinic alpha 1 subunit [Source:HGNC Symbol;Acc:HGNC:1955] | 1851,20 | 212,28 | 3,12 | 1638,9 | 0,00 |
| CHRN | cholinergic receptor nicotinic delta subunit [Source:HGNC Symbol;Acc:HGNC:1965] | 132,57 | 32,00 | 2,05 | 100,56 | 0,01 |
| CHRG | cholinergic receptor nicotinic gamma subunit [Source:HGNC Symbol;Acc:HGNC:1967] | 264,70 | 41,36 | 2,68 | 223,34 | 0,00 |
| CHST15 | carbohydrate sulfotransferase 15 [Source:HGNC Symbol;Acc:HGNC:18137] | 7,16 | 57,53 | 3,01 | - | 0,00 |
| CIP2A | cell proliferation regulating inhibitor of protein phosphatase 2A [Source:HGNC Symbol;Acc:HGNC:29302] | 46,34 | 18,44 | 1,33 | 50,37 | 0,04 |
| CKAP2 | cytoskeleton associated protein 2 [Source:HGNC Symbol;Acc:HGNC:1990] | 95,18 | 31,56 | 1,59 | 63,62 | 0,02 |
| CKB | creatine kinase B [Source:NCBI gene;Acc:100550185] | 1702,57 | 560,27 | 1,60 | 1142,3 | 0,02 |
| CLEC3B | C-type lectin domain family 3 member B [Source:NCBI gene;Acc:100540795] | 13,89 | 149,44 | 3,43 | 0 | 0,00 |
| CLMP | CXADR like membrane protein [Source:HGNC Symbol;Acc:HGNC:24039] | 18,99 | 95,07 | 2,32 | - | 0,01 |
| CMTM3 | CKLF like MARVEL transmembrane domain containing 3 [Source:HGNC Symbol;Acc:HGNC:19174] | 24,80 | 78,79 | 1,67 | 76,08 | 0,02 |
| CMTM7 | CKLF like MARVEL transmembrane domain containing 7 [Source:HGNC Symbol;Acc:HGNC:19178] | 30,33 | 4,98 | 2,61 | 53,99 | 0,01 |
| CNDP2 | carnosine dipeptidase 2 [Source:HGNC Symbol;Acc:HGNC:24437] | 36,30 | - | - | 25,35 | 0,01 |
| CNP | 2',3'-cyclic nucleotide 3' phosphodiesterase [Source:HGNC Symbol;Acc:HGNC:2158] | 255,80 | 136,26 | 1,91 | 99,96 | 0,02 |
| CNR1 | cannabinoid receptor 1 [Source:HGNC Symbol;Acc:HGNC:2159] | 161,43 | 79,79 | 1,68 | 176,01 | 0,01 |
| COBL | cord-on-bleu WH2 repeat protein [Source:HGNC Symbol;Acc:HGNC:22199] | 132,08 | 37,71 | 2,10 | 123,73 | 0,01 |
| COL12A1 | collagen type XII alpha 1 chain [Source:HGNC Symbol;Acc:HGNC:2188] | 132,08 | 36,99 | 1,84 | 95,09 | 0,01 |
| COL13A1 | collagen type XIII alpha 1 chain [Source:HGNC Symbol;Acc:HGNC:2190] | 1186,96 | - | - | 1604,2 | 0,03 |
| COL14A1 | collagen type XIV alpha 1 chain [Source:NCBI gene;Acc:100543201] | 51,71 | 2791,24 | 1,23 | 8 | 0,01 |
| COL16A1 | collagen type XVI alpha 1 chain [Source:HGNC Symbol;Acc:HGNC:2193] | 0,49 | 12,79 | 2,02 | 38,92 | 0,00 |
| COL18A1 | collagen type XVIII alpha 1 chain [Source:HGNC Symbol;Acc:HGNC:2195] | 0,49 | 73,25 | 7,23 | 72,76 | 0,00 |
| COL1A2 | collagen type I alpha 2 chain [Source:HGNC Symbol;Acc:HGNC:2198] | 96,70 | - | - | 1588,8 | 0,00 |
| COL20A1 | collagen type XX alpha 1 chain [Source:HGNC Symbol;Acc:HGNC:14670] | 667,06 | 1685,53 | 4,12 | 3 | 0,05 |
| COL4A1 | collagen type IV alpha 1 chain [Source:NCBI gene;Acc:100550138] | 15156,00 | 329,22 | 1,02 | 337,84 | 0,02 |
| COL5A1 | collagen type V alpha 1 chain [Source:HGNC Symbol;Acc:HGNC:2209] | 43852,37 | - | - | 28696, | 0,02 |
| COL6A1 | collagen type VI alpha 1 chain [Source:HGNC Symbol;Acc:HGNC:2211] | 29,84 | 43852,37 | 1,53 | 37 | 0,01 |
| COL6A2 | collagen type VI alpha 2 chain [Source:NCBI gene;Acc:100546041] | 29,84 | 4,15 | 2,85 | 25,69 | 0,02 |
| COL6A3 | collagen type VI alpha 3 chain [Source:NCBI gene;Acc:100549061] | 2778,02 | 931,96 | 1,58 | 1846,0 | 0,02 |
| COL8A1 | collagen type VIII alpha 1 chain [Source:HGNC Symbol;Acc:HGNC:2215] | 587,13 | 2722,70 | 2,21 | 5 | 0,01 |
| COMT | catechol-O-methyltransferase [Source:NCBI gene;Acc:100545849] | 3825,19 | 2722,70 | 2,21 | 2135,5 | 0,02 |
| CORO6 | coronin 6 [Source:HGNC Symbol;Acc:HGNC:21356] | 3825,19 | 12939,09 | 1,76 | 6 | 0,02 |
| CPAMD8 | C3 and PZP like alpha-2-macroglobulin domain containing 8 [Source:HGNC Symbol;Acc:HGNC:23228] | 4850,56 | - | - | 9113,8 | 0,02 |
| CPEB4 | cytoplasmic polyadenylation element binding protein 4 [Source:HGNC Symbol;Acc:HGNC:21747] | 2006,88 | 15002,23 | 1,63 | 9 | 0,01 |
| CREB3L1 | cAMP responsive element binding protein 3 like 1 [Source:HGNC Symbol;Acc:HGNC:18856] | 12,53 | 9851,79 | 2,30 | 10151, | 0,02 |
| CREM | cAMP responsive element modulator [Source:HGNC Symbol;Acc:HGNC:2352] | 12,53 | - | - | 67 | 0,01 |
| CRLF1 | cytokine receptor like factor 1 [Source:HGNC Symbol;Acc:HGNC:2364] | 115,42 | 54,48 | 2,12 | 7844,9 | 0,01 |
| CRTAC1 | cartilage acidic protein 1 [Source:HGNC Symbol;Acc:HGNC:14882] | 115,42 | 29,84 | 1,95 | 41,95 | 0,01 |
| CRYAB | crystallin alpha B [Source:NCBI gene;Acc:100548878] | 63,76 | 29,84 | 1,95 | 85,57 | 0,01 |
| CSGALNACT1 | chondroitin sulfate N-acetyl-galactosaminyl transferase 1 [Source:HGNC Symbol;Acc:HGNC:24290] | 63,76 | 10,63 | 2,58 | 53,13 | 0,01 |
| CSRFP3 | cysteine and glycine rich protein 3 [Source:HGNC Symbol;Acc:HGNC:2472] | 6,29 | 41,47 | 2,72 | - | 0,01 |
| CSTA | cystatin A [Source:HGNC Symbol;Acc:HGNC:2481] | 72,71 | 23,25 | 1,64 | 35,18 | 0,02 |
| CTBS | chitinase [Source:HGNC Symbol;Acc:HGNC:2496] | 72,71 | 23,25 | 1,64 | 49,46 | 0,02 |
| CTHRC1 | collagen triple helix repeat containing 1 [Source:HGNC Symbol;Acc:HGNC:18831] | 96,43 | 239,80 | 1,31 | 143,38 | 0,03 |
| CRYAB | crystallin alpha B [Source:NCBI gene;Acc:100548878] | 96,43 | 239,80 | 1,31 | - | 0,03 |
| CSGALNACT1 | chondroitin sulfate N-acetyl-galactosaminyl transferase 1 [Source:HGNC Symbol;Acc:HGNC:24290] | 11,40 | 36,43 | 1,68 | 143,38 | 0,03 |
| CSRFP3 | cysteine and glycine rich protein 3 [Source:HGNC Symbol;Acc:HGNC:2472] | 11,40 | 36,43 | 1,68 | 25,04 | 0,03 |
| CSTA | cystatin A [Source:HGNC Symbol;Acc:HGNC:2481] | 132,95 | 54,54 | 1,29 | 25,04 | 0,03 |
| CTBS | chitinase [Source:HGNC Symbol;Acc:HGNC:2496] | 132,95 | 54,54 | 1,29 | 78,41 | 0,03 |
| CTHRC1 | collagen triple helix repeat containing 1 [Source:HGNC Symbol;Acc:HGNC:18831] | 72,55 | 12,90 | 2,49 | 78,41 | 0,01 |
| CRYAB | crystallin alpha B [Source:NCBI gene;Acc:100548878] | 72,55 | 12,90 | 2,49 | 59,65 | 0,01 |
| CSGALNACT1 | chondroitin sulfate N-acetyl-galactosaminyl transferase 1 [Source:HGNC Symbol;Acc:HGNC:24290] | 206,42 | 43,96 | 2,23 | 59,65 | 0,01 |
| CSRFP3 | cysteine and glycine rich protein 3 [Source:HGNC Symbol;Acc:HGNC:2472] | 206,42 | 43,96 | 2,23 | 162,46 | 0,01 |
| CSTA | cystatin A [Source:HGNC Symbol;Acc:HGNC:2481] | 1,63 | 18,55 | 3,51 | - | 0,03 |
| CTBS | chitinase [Source:HGNC Symbol;Acc:HGNC:2496] | 1,63 | 18,55 | 3,51 | 16,92 | 0,03 |
| CTHRC1 | collagen triple helix repeat containing 1 [Source:HGNC Symbol;Acc:HGNC:18831] | 172,77 | 57,42 | 1,59 | 16,92 | 0,02 |
| CRYAB | crystallin alpha B [Source:NCBI gene;Acc:100548878] | 172,77 | 57,42 | 1,59 | 115,36 | 0,02 |
| CSGALNACT1 | chondroitin sulfate N-acetyl-galactosaminyl transferase 1 [Source:HGNC Symbol;Acc:HGNC:24290] | 36,09 | 14,29 | 1,34 | 115,36 | 0,04 |
| CSRFP3 | cysteine and glycine rich protein 3 [Source:HGNC Symbol;Acc:HGNC:2472] | 36,09 | 14,29 | 1,34 | 21,80 | 0,04 |
| CSTA | cystatin A [Source:HGNC Symbol;Acc:HGNC:2481] | 50,84 | 107,75 | 1,08 | 21,80 | 0,04 |
| CTBS | chitinase [Source:HGNC Symbol;Acc:HGNC:2496] | 50,84 | 107,75 | 1,08 | 56,90 | 0,04 |
| CTHRC1 | collagen triple helix repeat containing 1 [Source:HGNC Symbol;Acc:HGNC:18831] | 96,10 | - | - | 56,90 | 0,04 |
| CRYAB | crystallin alpha B [Source:NCBI gene;Acc:100548878] | 96,10 | 313,05 | 1,70 | - | 0,02 |

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|---------|---|---------|---------|-----------|-------------|------|
| CTNND1 | catenin delta 1 [Source:HGNC Symbol;Acc:HGNC:2515] | 363,62 | 170,98 | 1,09 | 192,64 | 0,04 |
| CTSB | cathepsin B [Source:NCBI gene;Acc:100544902] | 352,60 | 715,36 | 1,02 | 362,76 | 0,05 |
| CTSK | cathepsin K [Source:HGNC Symbol;Acc:HGNC:2536] | 107,39 | 297,77 | 1,47 | 190,38 | 0,02 |
| CUEDC2 | CUE domain containing 2 [Source:NCBI gene;Acc:100550651] | 98,27 | 43,80 | 1,17 | 54,47 | 0,04 |
| CXCL14 | C-X-C motif chemokine ligand 14 [Source:HGNC Symbol;Acc:HGNC:10640] | 1,36 | 113,62 | 6,39 | 112,26 | 0,00 |
| CXXC5 | CXXC finger protein 5 [Source:HGNC Symbol;Acc:HGNC:26943] | 142,17 | 68,21 | 1,06 | 73,96 | 0,04 |
| CYBRD1 | cytochrome b reductase 1 [Source:HGNC Symbol;Acc:HGNC:20797] | 5,53 | 20,98 | 1,92 | 15,45 | 0,04 |
| CYGB | cytoglobin [Source:NCBI gene;Acc:100549436] | 21,81 | 2,88 | 2,92 | 18,93 | 0,02 |
| CYP17A1 | cytochrome P450 family 17 subfamily A member 1 [Source:HGNC Symbol;Acc:HGNC:2593] | 40,70 | 6,53 | 2,64 | 34,16 | 0,01 |
| CYP21A2 | cytochrome P450 family 21 subfamily A member 2 [Source:HGNC Symbol;Acc:HGNC:2600] | 32,40 | 11,35 | 1,51 | 21,04 | 0,04 |
| CYRIA | protein FAM49A [Source:NCBI gene;Acc:100540217] | 479,58 | 104,09 | 2,20 | 375,49 | 0,01 |
| DAB2 | DAB adaptor protein 2 [Source:HGNC Symbol;Acc:HGNC:2662] | 2,60 | 22,04 | 3,08 | 19,43 | 0,02 |
| DACT1 | dishevelled binding antagonist of beta catenin 1 [Source:HGNC Symbol;Acc:HGNC:17748] | 294,22 | 55,81 | 2,40 | 238,40 | 0,01 |
| DAG1 | dystroglycan 1 [Source:NCBI gene;Acc:100547027] | 1039,74 | 357,52 | 1,54 | 682,23 | 0,02 |
| DAGLB | diacylglycerol lipase beta [Source:NCBI gene;Acc:100548002] | 66,09 | 25,75 | 1,36 | 40,35 | 0,03 |
| DAPK2 | death associated protein kinase 2 [Source:HGNC Symbol;Acc:HGNC:2675] | 180,91 | 31,62 | 2,52 | 149,30 | 0,00 |
| DBN1 | drebrin 1 [Source:HGNC Symbol;Acc:HGNC:2695] | 1387,57 | 313,05 | 2,15 | 1074,5 2 | 0,01 |
| DBX1 | developing brain homeobox 1 [Source:HGNC Symbol;Acc:HGNC:33185] | 24,80 | 3,71 | 2,74 | 21,09 | 0,02 |
| DCAF6 | DDI1 and CUL4 associated factor 6 [Source:HGNC Symbol;Acc:HGNC:30002] | 286,24 | 138,81 | 1,04 | 147,43 | 0,05 |
| DCK | deoxycytidine kinase [Source:HGNC Symbol;Acc:HGNC:2704] | 62,29 | 28,63 | 1,12 | 33,67 | 0,04 |
| DCLK1 | doublecortin like kinase 1 [Source:HGNC Symbol;Acc:HGNC:2700] | 91,54 | 25,19 | 1,86 | 66,35 | 0,02 |
| DCLK2 | doublecortin like kinase 2 [Source:HGNC Symbol;Acc:HGNC:19002] | 29,63 | 9,91 | 1,58 | 19,72 | 0,04 |
| DCN | decorin [Source:NCBI gene;Acc:100543191] | 220,53 | 2743,24 | 3,64 | 2522,7 1 | 0,00 |
| DDHD2 | DDHD domain containing 2 [Source:HGNC Symbol;Acc:HGNC:29106] | 31,96 | 11,63 | 1,46 | 20,33 | 0,04 |
| DEPTOR | DEP domain containing MTOR interacting protein [Source:HGNC Symbol;Acc:HGNC:22953] | 30,77 | 8,86 | 1,80 | 21,91 | 0,03 |
| DES | desmin [Source:HGNC Symbol;Acc:HGNC:2770] | 2631,94 | 982,46 | 1,42 | 1649,4 8 | 0,03 |
| DIP2C | disco interacting protein 2 homolog C [Source:HGNC Symbol;Acc:HGNC:29150] | 39,94 | 16,00 | 1,32 | 23,94 | 0,04 |
| DIPK1C | divergent protein kinase domain 1C [Source:HGNC Symbol;Acc:HGNC:31729] | 0,33 | 69,43 | 7,74 | 69,11 | 0,00 |
| DISP1 | dispatched RND transporter family member 1 [Source:NCBI gene;Acc:100548328] | 101,53 | 27,35 | 1,89 | 74,17 | 0,01 |
| DMD | dystrophin [Source:HGNC Symbol;Acc:HGNC:2928] | 122,47 | 20,76 | 2,56 | 101,71 | 0,00 |
| DMGDH | dimethylglycine dehydrogenase [Source:HGNC Symbol;Acc:HGNC:24475] | 109,23 | 8,80 | 3,63 | 100,43 | 0,00 |
| DMRT2 | doublesex and mab-3 related transcription factor 2 [Source:HGNC Symbol;Acc:HGNC:2935] | 32,94 | 3,21 | 3,36 | 29,73 | 0,01 |
| DNAJB5 | DnaJ heat shock protein family (Hsp40) member B5 [Source:HGNC Symbol;Acc:HGNC:14887] | 187,26 | 33,77 | 2,47 | 153,49 | 0,01 |
| DNAJB6 | DnaJ heat shock protein family (Hsp40) member B6 [Source:NCBI gene;Acc:100546860] | 373,33 | 177,12 | 1,08 | 196,21 | 0,04 |
| DNAJC7 | DnaJ heat shock protein family (Hsp40) member C7 [Source:NCBI gene;Acc:100544525] | 378,65 | 162,17 | 1,22 | 216,48 | 0,03 |
| DNER | delta/notch like EGF repeat containing [Source:HGNC Symbol;Acc:HGNC:24456] | 35,60 | 12,90 | 1,46 | 22,70 | 0,04 |
| DNM1 | dynamitin 1 [Source:HGNC Symbol;Acc:HGNC:2972] | 11,83 | 58,80 | 2,31 | 46,97 | 0,01 |
| DNMBP | dynamitin binding protein [Source:HGNC Symbol;Acc:HGNC:30373] | 25,34 | 57,75 | 1,19 | 32,41 | 0,04 |
| DOK7 | docking protein 7 [Source:HGNC Symbol;Acc:HGNC:26594] | 25,78 | 5,15 | 2,32 | 20,63 | 0,02 |
| DPT | dermatopontin [Source:NCBI gene;Acc:100540516] | 0,05 | 90,36 | 10,7 0 | 90,31 | 0,00 |
| DPYSL5 | dihydropyrimidinase like 5 [Source:HGNC Symbol;Acc:HGNC:20637] | 84,38 | 10,91 | 2,95 | 73,47 | 0,00 |
| DTNA | dystrobrevin alpha [Source:HGNC Symbol;Acc:HGNC:3057] | 19,48 | 4,43 | 2,14 | 15,05 | 0,04 |
| DTX2 | deltex E3 ubiquitin ligase 2 [Source:HGNC Symbol;Acc:HGNC:15973] | 201,91 | 78,01 | 1,37 | 123,90 | 0,03 |

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|---------|--|--------|---------|------|--------|------|
| DUSP1 | dual specificity phosphatase 1 [Source:HGNC Symbol;Acc:HGNC:3064] | 50,84 | 17,99 | 1,50 | 32,85 | 0,03 |
| DUSP6 | dual specificity phosphatase 6 [Source:HGNC Symbol;Acc:HGNC:3072] | 41,02 | 13,68 | 1,58 | 27,35 | 0,03 |
| DYNLT3 | dynein light chain Tctex-type 3 [Source:HGNC Symbol;Acc:HGNC:11694] | 7,00 | 26,19 | 1,90 | 19,19 | 0,03 |
| EAF2 | ELL associated factor 2 [Source:HGNC Symbol;Acc:HGNC:23115] | 13,78 | 49,78 | 1,85 | 35,99 | 0,02 |
| EBF2 | EBF transcription factor 2 [Source:HGNC Symbol;Acc:HGNC:19090] | 0,22 | 13,62 | 5,97 | 13,40 | 0,04 |
| ECE1 | endothelin converting enzyme 1 [Source:HGNC Symbol;Acc:HGNC:3146] | 29,63 | 104,15 | 1,81 | 74,52 | 0,02 |
| ECHDC2 | enoyl-CoA hydratase domain containing 2 [Source:HGNC Symbol;Acc:HGNC:23408] | 40,59 | 106,03 | 1,39 | 65,44 | 0,03 |
| ECPAS | Ecm29 proteasome adaptor and scaffold [Source:HGNC Symbol;Acc:HGNC:29020] | 110,70 | 50,00 | 1,15 | 60,70 | 0,04 |
| ECRG4 | ECRG4 augurin precursor [Source:NCBI gene;Acc:100544482] | 6,51 | 66,94 | 3,36 | 60,43 | 0,00 |
| EDNRA | endothelin receptor type A [Source:NCBI gene;Acc:100545831] | 8,90 | 123,75 | 3,80 | 114,85 | 0,00 |
| EEF1A2 | eukaryotic translation elongation factor 1 alpha 2 [Source:HGNC Symbol;Acc:HGNC:3192] | 437,53 | 178,45 | 1,29 | 259,07 | 0,03 |
| EEF2K | eukaryotic elongation factor 2 kinase [Source:HGNC Symbol;Acc:HGNC:24615] | 12,16 | 40,75 | 1,75 | 28,60 | 0,02 |
| EFEMP1 | EGF containing fibulin extracellular matrix protein 1 [Source:HGNC Symbol;Acc:HGNC:3218] | 1,03 | 78,35 | 6,25 | 77,32 | 0,00 |
| EGFL7 | EGF like domain multiple 7 [Source:NCBI gene;Acc:100546005] | 0,81 | 26,41 | 5,02 | 25,60 | 0,01 |
| ELMO1 | engulfment and cell motility 1 [Source:NCBI gene;Acc:100549625] | 10,36 | 52,43 | 2,34 | 42,07 | 0,01 |
| EMILIN2 | elastin microfibril interfacier 2 [Source:HGNC Symbol;Acc:HGNC:19881] | 102,18 | 367,54 | 1,85 | 265,36 | 0,01 |
| ENG | endoglin [Source:HGNC Symbol;Acc:HGNC:3349] | 7,81 | 32,06 | 2,04 | 24,24 | 0,02 |
| ENO2 | enolase 2 [Source:NCBI gene;Acc:100540825] | 42,81 | 130,84 | 1,61 | 88,02 | 0,02 |
| ENPP2 | ectonucleotide pyrophosphatase/phosphodiesterase 2 [Source:HGNC Symbol;Acc:HGNC:3357] | 1,14 | 74,19 | 6,02 | 73,05 | 0,00 |
| EPHA3 | EPH receptor A3 [Source:HGNC Symbol;Acc:HGNC:3387] | 2,39 | 17,50 | 2,87 | 15,11 | 0,04 |
| EPHA5 | EPH receptor A5 [Source:NCBI gene;Acc:100547106] | 22,74 | 2,55 | 3,16 | 20,19 | 0,02 |
| EPHB1 | EPH receptor B1 [Source:HGNC Symbol;Acc:HGNC:3392] | 171,58 | 1117,62 | 2,70 | 946,03 | 0,00 |
| EPN3 | epsin 3 [Source:HGNC Symbol;Acc:HGNC:18235] | 126,92 | 33,89 | 1,91 | 93,04 | 0,01 |
| ERAP1 | endoplasmic reticulum aminopeptidase 1 [Source:HGNC Symbol;Acc:HGNC:18173] | 56,22 | 10,35 | 2,44 | 45,86 | 0,01 |
| ESPL1 | extra spindle pole bodies like 1, separase [Source:HGNC Symbol;Acc:HGNC:16856] | 27,35 | 7,70 | 1,83 | 19,65 | 0,03 |
| ETF1 | eukaryotic translation termination factor 1 [Source:HGNC Symbol;Acc:HGNC:3477] | 219,82 | 100,27 | 1,13 | 119,55 | 0,04 |
| ETV4 | ETS variant transcription factor 4 [Source:HGNC Symbol;Acc:HGNC:3493] | 66,20 | 29,35 | 1,17 | 36,86 | 0,04 |
| EVA1B | eva-1 homolog B [Source:HGNC Symbol;Acc:HGNC:25558] | 5,48 | 31,67 | 2,53 | 26,19 | 0,01 |
| EVL | Enah/Vasp-like [Source:HGNC Symbol;Acc:HGNC:20234] | 60,45 | 138,59 | 1,20 | 78,14 | 0,03 |
| EXOC6 | exocyst complex component 6 [Source:HGNC Symbol;Acc:HGNC:23196] | 59,80 | 18,71 | 1,68 | 41,08 | 0,02 |
| EYA1 | EYA transcriptional coactivator and phosphatase 1 [Source:HGNC Symbol;Acc:HGNC:3519] | 177,66 | 29,40 | 2,60 | 148,26 | 0,00 |
| EYA2 | EYA transcriptional coactivator and phosphatase 2 [Source:HGNC Symbol;Acc:HGNC:3520] | 365,95 | 144,57 | 1,34 | 221,39 | 0,03 |
| EZR | eZRin [Source:HGNC Symbol;Acc:HGNC:12691] | 272,13 | 121,31 | 1,17 | 150,82 | 0,04 |
| F2RL1 | F2R like trypsin receptor 1 [Source:HGNC Symbol;Acc:HGNC:3538] | 69,08 | 18,16 | 1,93 | 50,92 | 0,01 |
| FABP4 | fatty acid binding protein 4 [Source:HGNC Symbol;Acc:HGNC:3559] | 2,71 | 423,57 | 7,29 | 420,86 | 0,00 |
| FABP5 | fatty acid binding protein 5 [Source:HGNC Symbol;Acc:HGNC:3560] | 1,84 | 77,02 | 5,38 | 75,17 | 0,00 |
| FAM13B | family with sequence similarity 13 member B [Source:HGNC Symbol;Acc:HGNC:1335] | 44,66 | 14,84 | 1,59 | 29,82 | 0,03 |
| FAM163B | family with sequence similarity 163 member B [Source:NCBI gene;Acc:100541070] | 18,18 | 3,49 | 2,38 | 14,69 | 0,04 |
| FAM20A | FAM20A golgi associated secretory pathway pseudokinase [Source:HGNC Symbol;Acc:HGNC:23015] | 11,50 | 37,26 | 1,70 | 25,76 | 0,03 |
| FAM234A | family with sequence similarity 234 member A [Source:HGNC Symbol;Acc:HGNC:14163] | 117,43 | 48,06 | 1,29 | 69,37 | 0,03 |
| FAT3 | FAT atypical cadherin 3 [Source:HGNC Symbol;Acc:HGNC:23112] | 27,89 | 1,11 | 4,65 | 26,78 | 0,01 |
| FAT4 | FAT atypical cadherin 4 [Source:HGNC Symbol;Acc:HGNC:23109] | 16,39 | 42,14 | 1,36 | 25,75 | 0,04 |
| FBLIM1 | filamin binding LIM protein 1 [Source:HGNC Symbol;Acc:HGNC:24686] | 32,45 | 74,53 | 1,20 | 42,08 | 0,04 |

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|---------|---|---------|----------|------|---------|------|
| FBLN1 | fibulin 1 [Source:HGNC Symbol;Acc:HGNC:3600] | 148,03 | 647,09 | 2,13 | 499,06 | 0,01 |
| FBLN2 | fibulin 2 [Source:HGNC Symbol;Acc:HGNC:3601] | 297,85 | 908,71 | 1,61 | 610,86 | 0,02 |
| FBN1 | fibrillin 1 [Source:HGNC Symbol;Acc:HGNC:3603] | 37,06 | 479,55 | 3,69 | 442,49 | 0,00 |
| FEZ1 | fasciculation and elongation protein zeta 1 [Source:NCBI gene;Acc:100542765] | 33,05 | 80,06 | 1,28 | 47,02 | 0,03 |
| FGF10 | fibroblast growth factor 10 [Source:HGNC Symbol;Acc:HGNC:3666] | 5,97 | 21,93 | 1,88 | 15,96 | 0,04 |
| FGF16 | fibroblast growth factor 16 [Source:HGNC Symbol;Acc:HGNC:3672] | 0,27 | 35,99 | 7,05 | 35,72 | 0,00 |
| FGF7 | fibroblast growth factor 7 [Source:NCBI gene;Acc:100550759] | 3,42 | 18,05 | 2,40 | 14,63 | 0,04 |
| FGFBP1 | fibroblast growth factor binding protein 1 [Source:NCBI gene;Acc:100546142] | 1,03 | 15,00 | 3,86 | 13,97 | 0,04 |
| FGFRL1 | fibroblast growth factor receptor like 1 [Source:HGNC Symbol;Acc:HGNC:3693] | 12,26 | 75,91 | 2,63 | 63,65 | 0,00 |
| FHL1 | four and a half LIM domains 1 [Source:HGNC Symbol;Acc:HGNC:3702] | 356,95 | 133,60 | 1,42 | 223,34 | 0,03 |
| FHOD1 | formin homology 2 domain containing 1 [Source:HGNC Symbol;Acc:HGNC:17905] | 179,29 | 60,74 | 1,56 | 118,55 | 0,02 |
| FHOD3 | formin homology 2 domain containing 3 [Source:HGNC Symbol;Acc:HGNC:26178] | 19,97 | 5,15 | 1,96 | 14,82 | 0,05 |
| FKBP1B | FKBP prolyl isomerase 1B [Source:HGNC Symbol;Acc:HGNC:3712] | 133,65 | 44,07 | 1,60 | 89,58 | 0,02 |
| FKBP9 | FKBP prolyl isomerase 9 [Source:HGNC Symbol;Acc:HGNC:3725] | 199,42 | 431,32 | 1,11 | 231,90 | 0,04 |
| FKTN | fukutin [Source:NCBI gene;Acc:100545765] | 53,34 | 12,51 | 2,09 | 40,83 | 0,01 |
| FLOT2 | flotillin 2 [Source:HGNC Symbol;Acc:HGNC:3758] | 41,62 | 89,70 | 1,11 | 48,08 | 0,04 |
| FLRT3 | fibronectin leucine rich transmembrane protein 3 [Source:NCBI gene;Acc:100544379] | 13,46 | 43,08 | 1,68 | 29,62 | 0,02 |
| FN1 | fibronectin 1 [Source:HGNC Symbol;Acc:HGNC:3778] | 2689,19 | 12133,42 | 2,17 | 9444,23 | 0,01 |
| FNDC1 | fibronectin type III domain containing 1 [Source:HGNC Symbol;Acc:HGNC:21184] | 31,53 | 483,76 | 3,94 | 452,23 | 0,00 |
| FNDC5 | fibronectin type III domain containing 5 [Source:HGNC Symbol;Acc:HGNC:20240] | 797,46 | 132,16 | 2,59 | 665,29 | 0,00 |
| FOXM1 | forkhead box M1 [Source:NCBI gene;Acc:100540784] | 41,24 | 10,58 | 1,96 | 30,66 | 0,02 |
| FRMD4B | FERM domain containing 4B [Source:HGNC Symbol;Acc:HGNC:24886] | 28,60 | 4,87 | 2,55 | 23,72 | 0,02 |
| FRZB | frizzled related protein [Source:HGNC Symbol;Acc:HGNC:3959] | 5,53 | 34,33 | 2,63 | 28,79 | 0,01 |
| FSTL1 | follicle-stimulating hormone-like 1 [Source:HGNC Symbol;Acc:HGNC:3972] | 135,06 | 372,58 | 1,46 | 237,51 | 0,02 |
| FSTL3 | follicle-stimulating hormone-like 3 [Source:HGNC Symbol;Acc:HGNC:3973] | 11,99 | 36,82 | 1,62 | 24,83 | 0,03 |
| FXR1 | FMR1 autosomal homolog 1 [Source:HGNC Symbol;Acc:HGNC:4023] | 346,31 | 153,26 | 1,18 | 193,05 | 0,03 |
| FXYD6 | FXYD domain containing ion transport regulator 6 [Source:NCBI gene;Acc:100544836] | 807,22 | 396,27 | 1,03 | 410,95 | 0,05 |
| FZD9 | frizzled class receptor 9 [Source:HGNC Symbol;Acc:HGNC:4047] | 312,23 | 111,40 | 1,49 | 200,83 | 0,02 |
| GALNT1 | polypeptide N-acetylgalactosaminyltransferase 1 [Source:NCBI gene;Acc:100544386] | 200,02 | 585,63 | 1,55 | 385,62 | 0,02 |
| GALNT16 | polypeptide N-acetylgalactosaminyltransferase 16 [Source:HGNC Symbol;Acc:HGNC:23233] | 4,94 | 38,65 | 2,97 | 33,71 | 0,01 |
| GALNT18 | polypeptide N-acetylgalactosaminyltransferase 18 [Source:HGNC Symbol;Acc:HGNC:30488] | 80,36 | 20,82 | 1,95 | 59,55 | 0,01 |
| GALNT5 | polypeptide N-acetylgalactosaminyltransferase 5 [Source:HGNC Symbol;Acc:HGNC:4127] | 6,35 | 32,50 | 2,36 | 26,15 | 0,02 |
| GAS6 | growth arrest specific 6 [Source:HGNC Symbol;Acc:HGNC:4168] | 7,98 | 34,05 | 2,09 | 26,07 | 0,02 |
| GDPD5 | glycerophosphodiester phosphodiesterase domain containing 5 [Source:HGNC Symbol;Acc:HGNC:28804] | 8,74 | 27,57 | 1,66 | 18,84 | 0,04 |
| GEM | GTP binding protein overexpressed in skeletal muscle [Source:HGNC Symbol;Acc:HGNC:4234] | 23,50 | 444,22 | 4,24 | 420,73 | 0,00 |
| GFAP | glial fibrillary acidic protein [Source:HGNC Symbol;Acc:HGNC:4235] | 50,52 | 15,61 | 1,69 | 34,91 | 0,02 |
| GFPT2 | glutamine-fructose-6-phosphate transaminase 2 [Source:HGNC Symbol;Acc:HGNC:4242] | 0,38 | 105,42 | 8,12 | 105,04 | 0,00 |
| GJA1 | gap junction protein alpha 1 [Source:HGNC Symbol;Acc:HGNC:4274] | 195,89 | 851,74 | 2,12 | 655,84 | 0,01 |
| GJA5 | gap junction protein alpha 5 [Source:NCBI gene;Acc:100543752] | 60,99 | 19,82 | 1,62 | 41,17 | 0,02 |
| GJD4 | gap junction protein delta 4 [Source:HGNC Symbol;Acc:HGNC:23296] | 34,46 | 7,64 | 2,17 | 26,82 | 0,02 |
| GK5 | glycerol kinase 5 [Source:HGNC Symbol;Acc:HGNC:28635] | 18,18 | 41,08 | 1,18 | 22,91 | 0,05 |
| GLT8D2 | glycosyltransferase 8 domain containing 2 [Source:NCBI gene;Acc:100543348] | 4,88 | 51,94 | 3,41 | 47,05 | 0,00 |
| GLUL | glutamate-ammonia ligase [Source:HGNC Symbol;Acc:HGNC:4341] | 4,83 | 23,64 | 2,29 | 18,81 | 0,03 |

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|----------|---|--------|--------|------|--------|------|
| GMPT | guanosine monophosphate reductase [Source:HGNC Symbol;Acc:HGNC:4376] | 42,11 | 9,58 | 2,14 | 32,53 | 0,01 |
| GNAL | G protein subunit alpha L [Source:HGNC Symbol;Acc:HGNC:4388] | 40,91 | 15,89 | 1,36 | 25,02 | 0,04 |
| GNMT | glycine N-methyltransferase [Source:NCBI gene;Acc:100540940] | 202,89 | 64,62 | 1,65 | 138,28 | 0,02 |
| GPBP1 | GC-rich promoter binding protein 1 [Source:HGNC Symbol;Acc:HGNC:29520] | 38,91 | 16,78 | 1,21 | 22,13 | 0,05 |
| GPC1 | glypican 1 [Source:HGNC Symbol;Acc:HGNC:4449] | 511,60 | 98,45 | 2,38 | 413,15 | 0,01 |
| GPD1L | glycerol-3-phosphate dehydrogenase 1 like [Source:HGNC Symbol;Acc:HGNC:28956] | 53,40 | 21,98 | 1,28 | 31,41 | 0,04 |
| GPR176 | G protein-coupled receptor 176 [Source:HGNC Symbol;Acc:HGNC:32370] | 57,52 | 12,46 | 2,21 | 45,06 | 0,01 |
| GPSM1 | G protein signaling modulator 1 [Source:HGNC Symbol;Acc:HGNC:17858] | 12,10 | 52,43 | 2,12 | 40,33 | 0,01 |
| GPX3 | glutathione peroxidase 3 [Source:HGNC Symbol;Acc:HGNC:4555] | 318,69 | 849,02 | 1,41 | 530,33 | 0,03 |
| GPX7 | glutathione peroxidase 7 [Source:NCBI gene;Acc:100545645] | 15,25 | 48,34 | 1,66 | 33,09 | 0,02 |
| GRB10 | growth factor receptor bound protein 10 [Source:NCBI gene;Acc:100542734] | 63,33 | 22,65 | 1,48 | 40,68 | 0,03 |
| GRIA3 | glutamate ionotropic receptor AMPA type subunit 3 [Source:NCBI gene;Acc:100542232] | 21,05 | 3,43 | 2,62 | 17,62 | 0,03 |
| GSE1 | Gse1 coiled-coil protein [Source:HGNC Symbol;Acc:HGNC:28979] | 259,65 | 95,40 | 1,44 | 164,25 | 0,02 |
| GTF2IRD1 | GTF2I repeat domain containing 1 [Source:HGNC Symbol;Acc:HGNC:4661] | 98,49 | 20,04 | 2,30 | 78,44 | 0,01 |
| HACD1 | 3-hydroxyacyl-CoA dehydratase 1 [Source:HGNC Symbol;Acc:HGNC:9639] | 48,62 | 19,21 | 1,34 | 29,41 | 0,03 |
| HAPLN3 | hyaluronan and proteoglycan link protein 3 [Source:HGNC Symbol;Acc:HGNC:21446] | 2,60 | 16,39 | 2,65 | 13,78 | 0,04 |
| HAS2 | hyaluronan synthase 2 [Source:HGNC Symbol;Acc:HGNC:4819] | 9,50 | 103,04 | 3,44 | 93,54 | 0,00 |
| HDAC1 | histone deacetylase 1 [Source:NCBI gene;Acc:100546927] | 100,17 | 220,03 | 1,14 | 119,86 | 0,04 |
| HECW2 | HECT, C2 and WW domain containing E3 ubiquitin protein ligase 2 [Source:HGNC Symbol;Acc:HGNC:29853] | 265,40 | 31,67 | 3,07 | 233,73 | 0,00 |
| HERC2 | HECT and RLD domain containing E3 ubiquitin protein ligase 2 [Source:HGNC Symbol;Acc:HGNC:4868] | 279,19 | 131,45 | 1,09 | 147,74 | 0,04 |
| HEY1 | hes related family bHLH transcription factor with YRPW motif 1 [Source:HGNC Symbol;Acc:HGNC:4880] | 55,67 | 7,31 | 2,93 | 48,37 | 0,00 |
| HEY2 | hes related family bHLH transcription factor with YRPW motif 2 [Source:HGNC Symbol;Acc:HGNC:4881] | 8,19 | 35,05 | 2,10 | 26,85 | 0,02 |
| HIC1 | HIC ZBTB transcriptional repressor 1 [Source:HGNC Symbol;Acc:HGNC:4909] | 116,88 | 326,29 | 1,48 | 209,40 | 0,02 |
| HIF1A | hypoxia inducible factor 1 subunit alpha [Source:HGNC Symbol;Acc:HGNC:4910] | 21,76 | 83,88 | 1,95 | 62,12 | 0,01 |
| HINT1 | histidine triad nucleotide binding protein 1 [Source:HGNC Symbol;Acc:HGNC:4912] | 91,33 | 31,34 | 1,54 | 59,99 | 0,02 |
| HIPK2 | homeodomain interacting protein kinase 2 [Source:NCBI gene;Acc:100547660] | 161,87 | 54,43 | 1,57 | 107,44 | 0,02 |
| HMGB2 | high mobility group box 2 [Source:NCBI gene;Acc:100549109] | 57,09 | 26,41 | 1,11 | 30,67 | 0,05 |
| HMOX1 | heme oxygenase 1 [Source:NCBI gene;Acc:100551243] | 47,64 | 153,76 | 1,69 | 106,12 | 0,02 |
| HOGA1 | 4-hydroxy-2-oxoglutarate aldolase 1 [Source:NCBI gene;Acc:100548398] | 39,61 | 11,13 | 1,83 | 28,48 | 0,02 |
| HOPX | HOP homeobox [Source:NCBI gene;Acc:100546449] | 503,13 | 169,26 | 1,57 | 333,87 | 0,02 |
| HOXC6 | homeobox C6 [Source:HGNC Symbol;Acc:HGNC:5128] | 0,27 | 25,47 | 6,55 | 25,20 | 0,01 |
| HOXD8 | homeobox D8 [Source:HGNC Symbol;Acc:HGNC:5139] | 2,44 | 43,63 | 4,16 | 41,19 | 0,00 |
| HPCAL1 | hippocalcin like 1 [Source:NCBI gene;Acc:100550125] | 56,54 | 160,24 | 1,50 | 103,69 | 0,02 |
| HPGDS | hematopoietic prostaglandin D synthase [Source:HGNC Symbol;Acc:HGNC:17890] | 1,30 | 26,91 | 4,37 | 25,61 | 0,01 |
| HSD17B7 | hydroxysteroid 17-beta dehydrogenase 7 [Source:NCBI gene;Acc:100542640] | 37,55 | 83,77 | 1,16 | 46,22 | 0,04 |
| HSF2 | heat shock transcription factor 2 [Source:HGNC Symbol;Acc:HGNC:5225] | 281,68 | 101,49 | 1,47 | 180,19 | 0,02 |
| HSPB1 | heat shock protein family B (small) member 1 [Source:NCBI gene;Acc:100544357] | 988,08 | 429,88 | 1,20 | 558,20 | 0,03 |
| HSPB8 | heat shock protein family B (small) member 8 [Source:HGNC Symbol;Acc:HGNC:30171] | 810,80 | 196,89 | 2,04 | 613,91 | 0,01 |
| IDH3A | isocitrate dehydrogenase (NAD(+)) 3 catalytic subunit alpha [Source:NCBI gene;Acc:100549122] | 271,53 | 128,23 | 1,08 | 143,30 | 0,04 |
| IDH3B | isocitrate dehydrogenase (NAD(+)) 3 non-catalytic subunit beta [Source:HGNC Symbol;Acc:HGNC:5385] | 143,58 | 63,12 | 1,19 | 80,46 | 0,03 |
| IFFO1 | intermediate filament family orphan 1 [Source:HGNC Symbol;Acc:HGNC:24970] | 87,26 | 26,74 | 1,71 | 60,51 | 0,02 |
| IGFBP4 | insulin like growth factor binding protein 4 [Source:HGNC Symbol;Acc:HGNC:5473] | 78,25 | 341,40 | 2,13 | 263,15 | 0,01 |
| IGSF3 | immunoglobulin superfamily member 3 [Source:HGNC Symbol;Acc:HGNC:5950] | 29,14 | 9,08 | 1,68 | 20,06 | 0,03 |

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|----------|---|--------|--------|------|--------|------|
| IL1RAP | interleukin 1 receptor accessory protein [Source:HGNC Symbol;Acc:HGNC:5995] | 11,34 | 32,06 | 1,50 | 20,72 | 0,04 |
| IL1RAPL2 | interleukin 1 receptor accessory protein like 2 [Source:HGNC Symbol;Acc:HGNC:5997] | 47,64 | 10,46 | 2,19 | 37,18 | 0,01 |
| IL1RL1 | interleukin 1 receptor like 1 [Source:NCBI gene;Acc:100542982] | 2,39 | 31,84 | 3,74 | 29,45 | 0,01 |
| INHBA | inhibin subunit beta A [Source:HGNC Symbol;Acc:HGNC:6066] | 34,46 | 78,07 | 1,18 | 43,61 | 0,04 |
| INKA2 | inka box actin regulator 2 [Source:HGNC Symbol;Acc:HGNC:28045] | 48,29 | 14,73 | 1,71 | 33,57 | 0,02 |
| IP6K3 | inositol hexakisphosphate kinase 3 [Source:NCBI gene;Acc:100544318] | 74,02 | 14,23 | 2,38 | 59,79 | 0,01 |
| IQGAP2 | IQ motif containing GTPase activating protein 2 [Source:HGNC Symbol;Acc:HGNC:6111] | 35,49 | 73,36 | 1,05 | 37,88 | 0,05 |
| ISLR2 | immunoglobulin superfamily containing leucine rich repeat 2 [Source:HGNC Symbol;Acc:HGNC:29286] | 2,39 | 20,71 | 3,12 | 18,32 | 0,02 |
| ITGA11 | integrin subunit alpha 11 [Source:NCBI gene;Acc:100547226] | 2,28 | 48,06 | 4,40 | 45,78 | 0,00 |
| ITGA6 | integrin subunit alpha 6 [Source:NCBI gene;Acc:100538428] | 613,99 | 70,21 | 3,13 | 543,78 | 0,00 |
| ITGB1BP2 | integrin subunit beta 1 binding protein 2 [Source:HGNC Symbol;Acc:HGNC:6154] | 39,83 | 9,19 | 2,12 | 30,64 | 0,01 |
| ITGB5 | integrin subunit beta 5 [Source:HGNC Symbol;Acc:HGNC:6160] | 193,23 | 438,57 | 1,18 | 245,34 | 0,03 |
| ITPK1 | inositol-tetrakisphosphate 1-kinase [Source:NCBI gene;Acc:100541150] | 198,55 | 46,29 | 2,10 | 152,26 | 0,01 |
| ITPR2 | inositol 1,4,5-trisphosphate receptor type 2 [Source:HGNC Symbol;Acc:HGNC:6181] | 6,29 | 48,95 | 2,96 | 42,65 | 0,00 |
| JAG2 | jagged canonical Notch ligand 2 [Source:HGNC Symbol;Acc:HGNC:6189] | 88,18 | 29,51 | 1,58 | 58,67 | 0,02 |
| JAKMIP2 | janus kinase and microtubule interacting protein 2 [Source:NCBI gene;Acc:100539315] | 41,46 | 13,90 | 1,58 | 27,56 | 0,03 |
| JAM3 | junctional adhesion molecule 3 [Source:HGNC Symbol;Acc:HGNC:15532] | 438,61 | 104,20 | 2,07 | 334,41 | 0,01 |
| JCHAIN | joining chain of multimeric IgA and IgM [Source:NCBI gene;Acc:100545573] | 146,29 | 61,24 | 1,26 | 85,06 | 0,03 |
| JPH1 | junctophilin 1 [Source:HGNC Symbol;Acc:HGNC:14201] | 34,19 | 7,92 | 2,11 | 26,27 | 0,02 |
| JPH2 | junctophilin 2 [Source:HGNC Symbol;Acc:HGNC:14202] | 288,84 | 22,87 | 3,66 | 265,98 | 0,00 |
| KCNE4 | potassium voltage-gated channel subfamily E regulatory subunit 4 [Source:NCBI gene;Acc:100550095] | 0,43 | 31,56 | 6,18 | 31,13 | 0,01 |
| KCNH6 | potassium voltage-gated channel subfamily H member 6 [Source:HGNC Symbol;Acc:HGNC:18862] | 73,47 | 16,56 | 2,15 | 56,92 | 0,01 |
| KCNJ2 | potassium inwardly rectifying channel subfamily J member 2 [Source:NCBI gene;Acc:100544982] | 23,77 | 7,31 | 1,70 | 16,46 | 0,04 |
| KCNJ5 | potassium inwardly rectifying channel subfamily J member 5 [Source:HGNC Symbol;Acc:HGNC:6266] | 43,03 | 8,19 | 2,39 | 34,84 | 0,01 |
| KCNMA1 | potassium calcium-activated channel subfamily M alpha 1 [Source:HGNC Symbol;Acc:HGNC:6284] | 31,91 | 9,91 | 1,69 | 22,00 | 0,03 |
| KCNT1 | potassium sodium-activated channel subfamily T member 1 [Source:HGNC Symbol;Acc:HGNC:18865] | 55,62 | 5,92 | 3,23 | 49,70 | 0,00 |
| KCTD3 | potassium channel tetramerization domain containing 3 [Source:HGNC Symbol;Acc:HGNC:21305] | 199,58 | 63,73 | 1,65 | 135,85 | 0,02 |
| KDEL3 | KDEL endoplasmic reticulum protein retention receptor 3 [Source:HGNC Symbol;Acc:HGNC:6306] | 55,78 | 115,94 | 1,06 | 60,16 | 0,05 |
| KIAA0232 | KIAA0232 [Source:HGNC Symbol;Acc:HGNC:28992] | 58,98 | 21,04 | 1,49 | 37,94 | 0,03 |
| KIAA0408 | KIAA0408 ortholog [Source:NCBI gene;Acc:100546395] | 23,93 | 4,32 | 2,47 | 19,61 | 0,02 |
| KIAA1217 | KIAA1217 [Source:HGNC Symbol;Acc:HGNC:25428] | 82,21 | 28,85 | 1,51 | 53,36 | 0,02 |
| KIAA1755 | KIAA1755 [Source:HGNC Symbol;Acc:HGNC:29372] | 7,87 | 45,90 | 2,54 | 38,03 | 0,01 |
| KIF13A | kinesin family member 13A [Source:HGNC Symbol;Acc:HGNC:14566] | 36,84 | 15,39 | 1,26 | 21,45 | 0,05 |
| KIF15 | kinesin family member 15 [Source:HGNC Symbol;Acc:HGNC:17273] | 35,16 | 13,12 | 1,42 | 22,04 | 0,04 |
| KIF20A | kinesin family member 20A [Source:HGNC Symbol;Acc:HGNC:9787] | 81,88 | 29,29 | 1,48 | 52,59 | 0,02 |
| KIF23 | kinesin family member 23 [Source:HGNC Symbol;Acc:HGNC:6392] | 54,64 | 20,87 | 1,39 | 33,77 | 0,03 |
| KIF26A | kinesin family member 26A [Source:HGNC Symbol;Acc:HGNC:20226] | 157,15 | 480,21 | 1,61 | 323,06 | 0,02 |
| KIF4A | kinesin family member 4A [Source:HGNC Symbol;Acc:HGNC:13339] | 49,05 | 22,04 | 1,15 | 27,02 | 0,04 |
| KIFC3 | kinesin family member C3 [Source:HGNC Symbol;Acc:HGNC:6326] | 304,31 | 84,99 | 1,84 | 219,32 | 0,01 |
| KLF5 | Kruppel like factor 5 [Source:HGNC Symbol;Acc:HGNC:6349] | 149,12 | 41,58 | 1,84 | 107,53 | 0,01 |
| KLHDC8A | kelch domain containing 8A [Source:HGNC Symbol;Acc:HGNC:25573] | 46,83 | 19,32 | 1,28 | 27,51 | 0,04 |
| KLHL40 | kelch like family member 40 [Source:NCBI gene;Acc:100551211] | 139,19 | 63,95 | 1,12 | 75,24 | 0,04 |
| KREMEN1 | kringle containing transmembrane protein 1 [Source:HGNC Symbol;Acc:HGNC:17550] | 41,46 | 7,92 | 2,39 | 33,54 | 0,01 |

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|----------|--|---------|---------|------|--------|------|
| KRT19 | keratin, type I cytoskeletal 19-like [Source:NCBI gene;Acc:100541022] | 256,34 | 26,74 | 3,26 | 229,60 | 0,00 |
| KSR1 | kinase suppressor of ras 1 [Source:HGNC Symbol;Acc:HGNC:6465] | 36,79 | 9,41 | 1,97 | 27,38 | 0,02 |
| LAMA2 | laminin subunit alpha 2 [Source:HGNC Symbol;Acc:HGNC:6482] | 113,30 | 27,35 | 2,05 | 85,95 | 0,01 |
| LAMA5 | laminin subunit alpha 5 [Source:HGNC Symbol;Acc:HGNC:6485] | 877,11 | 318,87 | 1,46 | 558,25 | 0,02 |
| LAMB2 | laminin subunit beta 2 [Source:HGNC Symbol;Acc:HGNC:6487] | 1100,41 | 437,58 | 1,33 | 662,83 | 0,03 |
| LAMC2 | laminin subunit gamma 2 [Source:HGNC Symbol;Acc:HGNC:6493] | 21,65 | 6,04 | 1,84 | 15,62 | 0,05 |
| LAMP5 | lysosomal associated membrane protein family member 5 [Source:HGNC Symbol;Acc:HGNC:16097] | 57,03 | 8,19 | 2,80 | 48,84 | 0,00 |
| LBH | LBH regulator of WNT signaling pathway [Source:NCBI gene;Acc:100540885] | 1227,39 | 383,82 | 1,68 | 843,57 | 0,02 |
| LDB2 | LIM domain binding 2 [Source:HGNC Symbol;Acc:HGNC:6533] | 6,62 | 23,03 | 1,80 | 16,41 | 0,04 |
| LDHA | lactate dehydrogenase A [Source:HGNC Symbol;Acc:HGNC:6535] | 854,32 | 2360,53 | 1,47 | 1506,2 | 0,02 |
| LGALS1 | galectin 1 [Source:NCBI gene;Acc:100548120] | 444,20 | 1090,65 | 1,30 | 646,45 | 0,03 |
| LGALS8 | galectin 8 [Source:NCBI gene;Acc:100550840] | 63,76 | 28,07 | 1,18 | 35,69 | 0,04 |
| LIMD1 | LIM domains containing 1 [Source:HGNC Symbol;Acc:HGNC:6612] | 135,39 | 65,89 | 1,04 | 69,50 | 0,05 |
| LIMD2 | LIM domain containing 2 [Source:NCBI gene;Acc:100542561] | 0,16 | 17,39 | 6,74 | 17,22 | 0,03 |
| LIX1L | limb and CNS expressed 1 like [Source:HGNC Symbol;Acc:HGNC:28715] | 12,91 | 35,16 | 1,44 | 22,24 | 0,04 |
| LMO7 | LIM domain 7 [Source:HGNC Symbol;Acc:HGNC:6646] | 1060,25 | 168,54 | 2,65 | 891,71 | 0,00 |
| LMOD2 | leiomodins 2 [Source:HGNC Symbol;Acc:HGNC:6648] | 1096,56 | 188,42 | 2,54 | 908,14 | 0,00 |
| LMOD3 | leiomodins 3 [Source:HGNC Symbol;Acc:HGNC:6649] | 35,49 | 5,09 | 2,80 | 30,39 | 0,01 |
| LRIG3 | leucine rich repeats and immunoglobulin like domains 3 [Source:HGNC Symbol;Acc:HGNC:30991] | 71,57 | 28,68 | 1,32 | 42,89 | 0,03 |
| LRP3 | LDL receptor related protein 3 [Source:HGNC Symbol;Acc:HGNC:6695] | 25,34 | 7,92 | 1,68 | 17,42 | 0,04 |
| LRRIC17 | leucine rich repeat containing 17 [Source:NCBI gene;Acc:100543703] | 6,29 | 23,25 | 1,89 | 16,96 | 0,04 |
| LRRN4 | leucine rich repeat neuronal 4 [Source:HGNC Symbol;Acc:HGNC:16208] | 10,58 | 33,28 | 1,65 | 22,70 | 0,03 |
| LSP1 | lymphocyte specific protein 1 [Source:HGNC Symbol;Acc:HGNC:6707] | 813,84 | 385,37 | 1,08 | 428,48 | 0,04 |
| LTBP2 | latent transforming growth factor beta binding protein 2 [Source:HGNC Symbol;Acc:HGNC:6715] | 103,48 | 32,00 | 1,69 | 71,48 | 0,02 |
| LUM | lumican [Source:NCBI gene;Acc:100543036] | 41,89 | 1954,95 | 5,54 | 1913,0 | 0,00 |
| LYSMD2 | LysM domain containing 2 [Source:NCBI gene;Acc:100549277] | 82,97 | 39,70 | 1,06 | 43,27 | 0,05 |
| MAB21L1 | mab-21 like 1 [Source:HGNC Symbol;Acc:HGNC:6757] | 1,19 | 50,94 | 5,42 | 49,75 | 0,00 |
| MACF1 | microtubule actin crosslinking factor 1 [Source:HGNC Symbol;Acc:HGNC:13664] | 607,32 | 235,43 | 1,37 | 371,89 | 0,03 |
| MAFA | MAF bZIP transcription factor A [Source:NCBI gene;Acc:100541507] | 102,34 | 20,32 | 2,33 | 82,02 | 0,01 |
| MAFB | MAF bZIP transcription factor B [Source:NCBI gene;Acc:100546880] | 55,08 | 291,07 | 2,40 | 236,00 | 0,01 |
| MAGI1 | membrane associated guanylate kinase, WW and PDZ domain containing 1 [Source:HGNC Symbol;Acc:HGNC:946] | 38,96 | 16,33 | 1,25 | 22,63 | 0,04 |
| MAMDC2 | MAM domain containing 2 [Source:HGNC Symbol;Acc:HGNC:23673] | 483,27 | 84,88 | 2,51 | 398,39 | 0,00 |
| MAN2A2 | mannosidase alpha class 2A member 2 [Source:NCBI gene;Acc:100539000] | 190,57 | 87,48 | 1,12 | 103,09 | 0,04 |
| MAOA | monoamine oxidase A [Source:HGNC Symbol;Acc:HGNC:6833] | 2,77 | 20,21 | 2,87 | 17,44 | 0,03 |
| MAP1A | microtubule associated protein 1A [Source:HGNC Symbol;Acc:HGNC:6835] | 688,44 | 199,22 | 1,79 | 489,22 | 0,02 |
| MAP1B | microtubule associated protein 1B [Source:HGNC Symbol;Acc:HGNC:6836] | 19,37 | 89,70 | 2,21 | 70,33 | 0,01 |
| MAP1LC3C | microtubule associated protein 1 light chain 3 gamma [Source:HGNC Symbol;Acc:HGNC:13353] | 47,10 | 15,34 | 1,62 | 31,76 | 0,02 |
| MAPRE1 | microtubule associated protein RP/EB family member 1 [Source:NCBI gene;Acc:100545907] | 721,54 | 348,88 | 1,05 | 372,66 | 0,04 |
| MAPRE2 | microtubule associated protein RP/EB family member 2 [Source:NCBI gene;Acc:100546702] | 71,03 | 175,13 | 1,30 | 104,10 | 0,03 |
| MCAM | melanoma cell adhesion molecule [Source:HGNC Symbol;Acc:HGNC:6934] | 462,11 | 39,26 | 3,56 | 422,85 | 0,00 |
| MCFD2 | multiple coagulation factor deficiency 2 [Source:NCBI gene;Acc:100546237] | 67,83 | 139,81 | 1,04 | 71,98 | 0,05 |
| MCM2 | minichromosome maintenance complex component 2 [Source:HGNC Symbol;Acc:HGNC:6944] | 83,57 | 36,54 | 1,19 | 47,02 | 0,04 |
| MCM3 | minichromosome maintenance complex component 3 [Source:HGNC Symbol;Acc:HGNC:6945] | 62,67 | 21,32 | 1,56 | 41,36 | 0,02 |

| | | | | | | |
|---------|--|---------|---------|------|-----------------|------|
| MCM5 | minichromosome maintenance complex component 5 [Source:HGNC Symbol;Acc:HGNC:6948] | 68,97 | 29,12 | 1,24 | 39,84 | 0,04 |
| MCU | mitochondrial calcium uniporter [Source:HGNC Symbol;Acc:HGNC:23526] | 167,02 | 46,40 | 1,85 | 120,62 | 0,01 |
| MDF1 | MyoD family inhibitor [Source:HGNC Symbol;Acc:HGNC:6967] | 2,93 | 16,22 | 2,47 | 13,29 | 0,05 |
| MECOM | MDS1 and EVI1 complex locus [Source:NCBI gene;Acc:100541414] | 0,71 | 83,22 | 6,88 | 82,51 | 0,00 |
| MEF2A | myocyte enhancer factor 2A [Source:HGNC Symbol;Acc:HGNC:6993] | 95,18 | 38,32 | 1,31 | 56,86 | 0,03 |
| MEF2C | myocyte enhancer factor 2C [Source:HGNC Symbol;Acc:HGNC:6996] | 41,08 | 8,58 | 2,26 | 32,50 | 0,01 |
| MEIS2 | Meis homeobox 2 [Source:HGNC Symbol;Acc:HGNC:7001] | 1,36 | 27,91 | 4,36 | 26,55 | 0,01 |
| MELK | maternal embryonic leucine zipper kinase [Source:NCBI gene;Acc:100549393] | 111,19 | 34,33 | 1,70 | 76,86 | 0,02 |
| MEOX2 | mesenchyme homeobox 2 [Source:NCBI gene;Acc:100545270] | 0,92 | 17,88 | 4,28 | 16,96 | 0,03 |
| MET | MET proto-oncogene, receptor tyrosine kinase [Source:NCBI gene;Acc:100544894] | 25,34 | 3,99 | 2,67 | 21,35 | 0,02 |
| METRNL | meteorin like, glial cell differentiation regulator [Source:HGNC Symbol;Acc:HGNC:27584] | 103,81 | 218,32 | 1,07 | 114,51 | 0,04 |
| METTL24 | methyltransferase like 24 [Source:HGNC Symbol;Acc:HGNC:21566] | 116,50 | 38,87 | 1,58 | 77,63 | 0,02 |
| MFSD2A | major facilitator superfamily domain containing 2A [Source:HGNC Symbol;Acc:HGNC:25897] | 72,88 | 33,00 | 1,14 | 39,88 | 0,04 |
| MGAT4B | alpha-1,3-mannosyl-glycoprotein 4-beta-N-acetylglucosaminyltransferase B [Source:HGNC Symbol;Acc:HGNC:7048] | 114,33 | 49,44 | 1,21 | 64,89 | 0,03 |
| MGP | matrix Gla protein [Source:NCBI gene;Acc:100542353] | 169,79 | 24,47 | 2,79 | 145,32 | 0,00 |
| MICAL1 | microtubule associated monooxygenase, calponin and LIM domain containing 1 [Source:HGNC Symbol;Acc:HGNC:20619] | 125,95 | 51,27 | 1,30 | 74,67 1239,4 | 0,03 |
| MICALL1 | MICAL like 1 [Source:HGNC Symbol;Acc:HGNC:29804] | 1556,49 | 317,04 | 2,30 | 5 | 0,01 |
| MID1 | midline 1 [Source:HGNC Symbol;Acc:HGNC:7095] | 115,91 | 30,56 | 1,92 | 85,34 | 0,01 |
| MIF | macrophage migration inhibitory factor [Source:HGNC Symbol;Acc:HGNC:7097] | 164,53 | 399,04 | 1,28 | 234,51 | 0,03 |
| MMP11 | matrix metalloproteinase 11 [Source:HGNC Symbol;Acc:HGNC:7157] | 73,36 | 156,14 | 1,09 | 82,78 | 0,04 |
| MMP13 | matrix metalloproteinase 13 [Source:HGNC Symbol;Acc:HGNC:7159] | 1,30 | 64,50 | 5,63 | 63,20 | 0,00 |
| MMP16 | matrix metalloproteinase 16 [Source:HGNC Symbol;Acc:HGNC:7162] | 7,87 | 25,97 | 1,72 | 18,10 | 0,04 |
| MMP2 | matrix metalloproteinase 2 [Source:HGNC Symbol;Acc:HGNC:7166] | 1241,49 | 4834,34 | 1,96 | 3592,8 5 | 0,01 |
| MMP23B | matrix metalloproteinase 23B [Source:HGNC Symbol;Acc:HGNC:7171] | 5,05 | 109,85 | 4,44 | 104,80 | 0,00 |
| MMP28 | matrix metalloproteinase 28 [Source:HGNC Symbol;Acc:HGNC:14366] | 40,59 | 4,32 | 3,23 | 36,27 | 0,01 |
| MMP9 | matrix metalloproteinase 9 [Source:NCBI gene;Acc:100540313] | 47,32 | 229,28 | 2,28 | 181,96 | 0,01 |
| MOSPD2 | motile sperm domain containing 2 [Source:HGNC Symbol;Acc:HGNC:28381] | 199,26 | 49,78 | 2,00 | 149,48 | 0,01 |
| MRAS | muscle RAS oncogene homolog [Source:HGNC Symbol;Acc:HGNC:7227] | 1053,42 | 282,82 | 1,90 | 770,59 | 0,01 |
| MTFR1L | mitochondrial fission regulator 1 like [Source:HGNC Symbol;Acc:HGNC:28836] | 231,33 | 92,74 | 1,32 | 138,58 | 0,03 |
| MTMR3 | myotubularin related protein 3 [Source:HGNC Symbol;Acc:HGNC:7451] | 58,44 | 26,30 | 1,15 | 32,14 | 0,04 |
| MTSS2 | MTSS I-BAR domain containing 2 [Source:HGNC Symbol;Acc:HGNC:25094] | 334,86 | 97,89 | 1,77 | 236,97 | 0,02 |
| MUSK | muscle associated receptor tyrosine kinase [Source:HGNC Symbol;Acc:HGNC:7525] | 99,90 | 11,74 | 3,09 | 88,16 | 0,00 |
| MYADML2 | myeloid associated differentiation marker like 2 [Source:HGNC Symbol;Acc:HGNC:34548] | 28,81 | 7,70 | 1,90 | 21,12 | 0,03 |
| MYBPH | myosin binding protein H [Source:HGNC Symbol;Acc:HGNC:7552] | 643,62 | 224,30 | 1,52 | 419,32 | 0,02 |
| MYCL | MYCL proto-oncogene, bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:7555] | 63,16 | 21,48 | 1,56 | 41,68 | 0,02 |
| MYCN | MYCN proto-oncogene, bHLH transcription factor [Source:HGNC Symbol;Acc:HGNC:7559] | 15,63 | 2,55 | 2,62 | 13,08 | 0,05 |
| MYL3 | myosin light chain 3 [Source:NCBI gene;Acc:100538682] | 932,63 | 258,07 | 1,85 | 674,55 | 0,01 |
| MYLK | myosin light chain kinase [Source:NCBI gene;Acc:100547989] | 78,41 | 16,89 | 2,22 | 61,52 | 0,01 |
| MYLK2 | myosin light chain kinase 2 [Source:HGNC Symbol;Acc:HGNC:16243] | 48,02 | 9,63 | 2,32 | 38,39 | 0,01 |
| MYMK | myomaker, myoblast fusion factor [Source:HGNC Symbol;Acc:HGNC:33778] | 562,77 | 70,04 | 3,01 | 492,73 | 0,00 |
| MYO16 | myosin XVI [Source:HGNC Symbol;Acc:HGNC:29822] | 148,30 | 23,48 | 2,66 | 124,83 | 0,00 |
| MYO18B | myosin XVIIIIB [Source:HGNC Symbol;Acc:HGNC:18150] | 107,12 | 27,96 | 1,94 | 79,15 | 0,01 |
| MYO1D | myosin ID [Source:HGNC Symbol;Acc:HGNC:7598] | 94,91 | 198,00 | 1,06 | 103,09 | 0,04 |

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|---------|--|---------|--------|------|------------------|------|
| MYO9A | myosin IXA [Source:HGNC Symbol;Acc:HGNC:7608] | 81,23 | 25,97 | 1,65 | 55,26 | 0,02 |
| MYOC | myocilin [Source:HGNC Symbol;Acc:HGNC:7610] | 6,29 | 125,30 | 4,32 | 119,00 | 0,00 |
| MYOD1 | myogenic differentiation 1 [Source:HGNC Symbol;Acc:HGNC:7611] | 865,23 | 103,37 | 3,07 | 761,86 1872,7 | 0,00 |
| MYOG | myogenin [Source:HGNC Symbol;Acc:HGNC:7612] | 2280,86 | 408,12 | 2,48 | 3 | 0,01 |
| MYOM1 | myomesin 1 [Source:HGNC Symbol;Acc:HGNC:7613] | 652,74 | 135,10 | 2,27 | 517,64 | 0,01 |
| MYOM2 | myomesin 2 [Source:HGNC Symbol;Acc:HGNC:7614] | 161,11 | 20,65 | 2,96 | 140,46 | 0,00 |
| MYOM3 | myomesin 3 [Source:HGNC Symbol;Acc:HGNC:26679] | 575,19 | 94,02 | 2,61 | 481,18 | 0,00 |
| MYOZ1 | myozenin 1 [Source:NCBI gene;Acc:100543368] | 96,59 | 25,41 | 1,93 | 71,17 | 0,01 |
| MYOZ2 | myozenin 2 [Source:NCBI gene;Acc:100539396] | 395,20 | 100,16 | 1,98 | 295,04 | 0,01 |
| MYPN | myopalladin [Source:HGNC Symbol;Acc:HGNC:23246] | 24,26 | 7,59 | 1,68 | 16,67 | 0,04 |
| N4BP3 | NEDD4 binding protein 3 [Source:NCBI gene;Acc:100549228] | 34,62 | 14,40 | 1,27 | 20,22 | 0,05 |
| NAV3 | neuron navigator 3 [Source:HGNC Symbol;Acc:HGNC:15998] | 41,24 | 17,55 | 1,23 | 23,69 | 0,04 |
| NBEAL2 | neurobeachin like 2 [Source:HGNC Symbol;Acc:HGNC:31928] | 54,86 | 14,84 | 1,89 | 40,02 | 0,02 |
| NBL1 | NBL1, DAN family BMP antagonist [Source:HGNC Symbol;Acc:HGNC:7650] | 252,70 | 97,95 | 1,37 | 154,76 | 0,03 |
| NCALD | neurocalcin delta [Source:NCBI gene;Acc:100548483] | 51,60 | 19,82 | 1,38 | 31,78 | 0,03 |
| NCAM1 | neural cell adhesion molecule 1 [Source:HGNC Symbol;Acc:HGNC:7656] | 812,32 | 142,85 | 2,51 | 669,47 | 0,00 |
| NDC80 | NDC80 kinetochore complex component [Source:HGNC Symbol;Acc:HGNC:16909] | 40,26 | 10,13 | 1,99 | 30,13 | 0,02 |
| NDRG3 | NDRG family member 3 [Source:HGNC Symbol;Acc:HGNC:14462] | 148,19 | 70,15 | 1,08 | 78,04 | 0,04 |
| NDUFA5 | NADH:ubiquinone oxidoreductase subunit A5 [Source:HGNC Symbol;Acc:HGNC:7688] | 154,27 | 60,02 | 1,36 | 94,25 | 0,03 |
| NECTIN3 | nectin cell adhesion molecule 3 [Source:HGNC Symbol;Acc:HGNC:17664] | 65,44 | 19,21 | 1,77 | 46,23 | 0,02 |
| NET1 | neuroepithelial cell transforming 1 [Source:HGNC Symbol;Acc:HGNC:14592] | 158,72 | 60,96 | 1,38 | 97,76 | 0,03 |
| NEURL1 | neuralized E3 ubiquitin protein ligase 1 [Source:NCBI gene;Acc:100539867] | 54,32 | 4,93 | 3,46 | 49,39 | 0,00 |
| NEURL1B | neuralized E3 ubiquitin protein ligase 1B [Source:HGNC Symbol;Acc:HGNC:35422] | 76,02 | 17,99 | 2,08 | 58,03 1323,1 | 0,01 |
| NEXN | nexilin F-actin binding protein [Source:HGNC Symbol;Acc:HGNC:29557] | 1572,45 | 249,27 | 2,66 | 8 | 0,00 |
| NFATC1 | nuclear factor of activated T cells 1 [Source:HGNC Symbol;Acc:HGNC:7775] | 41,57 | 93,19 | 1,16 | 51,62 | 0,04 |
| NFIA | nuclear factor I A [Source:HGNC Symbol;Acc:HGNC:7784] | 10,74 | 30,73 | 1,52 | 19,99 | 0,04 |
| NHSL1 | NHS like 1 [Source:HGNC Symbol;Acc:HGNC:21021] | 67,07 | 18,66 | 1,85 | 48,41 | 0,02 |
| NHSL2 | NHS like 2 [Source:HGNC Symbol;Acc:HGNC:33737] | 53,83 | 3,88 | 3,80 | 49,95 | 0,00 |
| NIBAN1 | niban apoptosis regulator 1 [Source:HGNC Symbol;Acc:HGNC:16784] | 3,74 | 29,07 | 2,96 | 25,32 | 0,01 |
| NID2 | nidogen 2 [Source:HGNC Symbol;Acc:HGNC:13389] | 966,76 | 84,16 | 3,52 | 882,60 | 0,00 |
| NIN | ninein [Source:HGNC Symbol;Acc:HGNC:14906] | 22,47 | 5,32 | 2,08 | 17,15 | 0,03 |
| NMI | N-myc and STAT interactor [Source:HGNC Symbol;Acc:HGNC:7854] | 39,12 | 16,72 | 1,23 | 22,40 | 0,05 |
| NMU | neuromedin U [Source:HGNC Symbol;Acc:HGNC:7859] | 32,12 | 3,54 | 3,18 | 28,58 | 0,01 |
| NOD1 | nucleotide binding oligomerization domain containing 1 [Source:HGNC Symbol;Acc:HGNC:16390] | 9,22 | 32,78 | 1,83 | 23,55 | 0,03 |
| NPL | N-acetylneuraminate pyruvate lyase [Source:NCBI gene;Acc:100538535] | 4,23 | 17,99 | 2,09 | 13,76 | 0,05 |
| NPPB | natriuretic peptides A [Source:NCBI gene;Acc:104914182] | 81,45 | 10,46 | 2,96 | 70,98 | 0,00 |
| NPR2 | natriuretic peptide receptor 2 [Source:HGNC Symbol;Acc:HGNC:7944] | 421,46 | 136,59 | 1,63 | 284,87 | 0,02 |
| NR4A3 | nuclear receptor subfamily 4 group A member 3 [Source:HGNC Symbol;Acc:HGNC:7982] | 45,58 | 14,78 | 1,62 | 30,80 | 0,02 |
| NRAP | nebulin related anchoring protein [Source:HGNC Symbol;Acc:HGNC:7988] | 153,24 | 69,43 | 1,14 | 83,81 | 0,04 |
| NRSN1 | neurensin 1 [Source:NCBI gene;Acc:100546700] | 5,26 | 38,81 | 2,88 | 33,55 | 0,01 |
| NSG1 | neuronal vesicle trafficking associated 1 [Source:NCBI gene;Acc:100547061] | 58,71 | 20,21 | 1,54 | 38,50 | 0,02 |
| NSMCE4A | NSE4 homolog A, SMC5-SMC6 complex component [Source:HGNC Symbol;Acc:HGNC:25935] | 76,40 | 32,72 | 1,22 | 43,68 | 0,04 |
| NT5C1A | 5'-nucleotidase, cytosolic 1A [Source:HGNC Symbol;Acc:HGNC:17819] | 39,50 | 3,99 | 3,31 | 35,52 | 0,01 |

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|---------|---|---------|---------|-------|---------|------|
| NT5DC2 | 5'-nucleotidase domain containing 2 [Source:NCBI gene;Acc:100539982] | 125,40 | 319,81 | 1,35 | 194,41 | 0,03 |
| NT5E | 5'-nucleotidase ecto [Source:HGNC Symbol;Acc:HGNC:8021] | 0,11 | 16,67 | 7,26 | 16,56 | 0,03 |
| NTN4 | netrin 4 [Source:HGNC Symbol;Acc:HGNC:13658] | 174,02 | 53,54 | 1,70 | 120,48 | 0,02 |
| NTRK3 | neurotrophic receptor tyrosine kinase 3 [Source:NCBI gene;Acc:100546817] | 0,16 | 13,29 | 6,35 | 13,13 | 0,05 |
| NUF2 | NUF2 component of NDC80 kinetochore complex [Source:HGNC Symbol;Acc:HGNC:14621] | 33,59 | 9,80 | 1,78 | 23,79 | 0,03 |
| NUMB | NUMB endocytic adaptor protein [Source:HGNC Symbol;Acc:HGNC:8060] | 197,41 | 97,23 | 1,02 | 100,18 | 0,05 |
| NUP155 | nucleoporin 155 [Source:HGNC Symbol;Acc:HGNC:8063] | 91,05 | 42,25 | 1,11 | 48,81 | 0,04 |
| NXN | nucleoredoxin [Source:HGNC Symbol;Acc:HGNC:18008] | 30,93 | 67,94 | 1,14 | 37,01 | 0,04 |
| OAF | out at first homolog [Source:HGNC Symbol;Acc:HGNC:28752] | 29,25 | 102,49 | 1,81 | 73,24 | 0,02 |
| OBSCN | obscurin, cytoskeletal calmodulin and titin-interacting RhoGEF [Source:HGNC Symbol;Acc:HGNC:15719] | 69,08 | 10,35 | 2,74 | 58,72 | 0,00 |
| OBSL1 | obscurin like cytoskeletal adaptor 1 [Source:HGNC Symbol;Acc:HGNC:29092] | 219,71 | 38,70 | 2,51 | 181,01 | 0,00 |
| ODC1 | ornithine decarboxylase 1 [Source:HGNC Symbol;Acc:HGNC:8109] | 166,97 | 545,21 | 1,71 | 378,25 | 0,02 |
| OGFOD3 | 2-oxoglutarate and iron dependent oxygenase domain containing 3 [Source:HGNC Symbol;Acc:HGNC:26174] | 41,40 | 17,77 | 1,22 | 23,63 | 0,04 |
| OGN | osteoglycin [Source:HGNC Symbol;Acc:HGNC:8126] | 0,43 | 546,16 | 10,30 | 545,72 | 0,00 |
| OIT3 | oncoprotein induced transcript 3 [Source:HGNC Symbol;Acc:HGNC:29953] | 48,35 | 13,73 | 1,82 | 34,62 | 0,02 |
| OLFML2A | olfactomedin like 2A [Source:HGNC Symbol;Acc:HGNC:27270] | 188,29 | 43,74 | 2,11 | 144,55 | 0,01 |
| OLFML2B | olfactomedin like 2B [Source:HGNC Symbol;Acc:HGNC:24558] | 210,49 | 541,73 | 1,36 | 331,24 | 0,03 |
| OPCML | opioid binding protein/cell adhesion molecule like [Source:NCBI gene;Acc:100547810] | 14,11 | 0,50 | 4,82 | 13,61 | 0,04 |
| OPTC | opticin [Source:NCBI gene;Acc:100549406] | 34,67 | 1,66 | 4,38 | 33,01 | 0,01 |
| P3H1 | prolyl 3-hydroxylase 1 [Source:HGNC Symbol;Acc:HGNC:19316] | 164,69 | 341,46 | 1,05 | 176,77 | 0,04 |
| P3H4 | prolyl 3-hydroxylase family member 4 (inactive) [Source:HGNC Symbol;Acc:HGNC:16946] | 70,27 | 187,04 | 1,41 | 116,76 | 0,03 |
| P4HA3 | prolyl 4-hydroxylase subunit alpha 3 [Source:HGNC Symbol;Acc:HGNC:30135] | 34,46 | 357,46 | 3,37 | 323,00 | 0,00 |
| P4HB | prolyl 4-hydroxylase subunit beta [Source:NCBI gene;Acc:100545902] | 1389,96 | 2823,24 | 1,02 | 1433,29 | 0,05 |
| PACS2 | phosphofurin acidic cluster sorting protein 2 [Source:HGNC Symbol;Acc:HGNC:23794] | 96,43 | 30,34 | 1,67 | 66,08 | 0,02 |
| PACSIN3 | protein kinase C and casein kinase substrate in neurons 3 [Source:NCBI gene;Acc:100548749] | 537,81 | 166,55 | 1,69 | 371,26 | 0,02 |
| PALM2AK | PALM2 and AKAP2 fusion [Source:HGNC Symbol;Acc:HGNC:33529] | 386,19 | 83,94 | 2,20 | 302,25 | 0,01 |
| PAPSS2 | 3'-phosphoadenosine 5'-phosphosulfate synthase 2 [Source:HGNC Symbol;Acc:HGNC:8604] | 18,78 | 49,11 | 1,39 | 30,34 | 0,03 |
| PAQR7 | progesterone and adiponectin receptor family member 7 [Source:HGNC Symbol;Acc:HGNC:23146] | 30,93 | 11,68 | 1,40 | 19,25 | 0,05 |
| PARVB | parvin beta [Source:HGNC Symbol;Acc:HGNC:14653] | 435,57 | 173,69 | 1,33 | 261,88 | 0,03 |
| PAX7 | paired box 7 [Source:HGNC Symbol;Acc:HGNC:8621] | 84,54 | 5,26 | 4,01 | 79,28 | 0,00 |
| PCMT1 | protein-L-isoaspartate (D-aspartate) O-methyltransferase [Source:NCBI gene;Acc:100541549] | 143,09 | 62,40 | 1,20 | 80,69 | 0,03 |
| PCOLCE2 | procollagen C-endopeptidase enhancer 2 [Source:HGNC Symbol;Acc:HGNC:8739] | 33,26 | 169,15 | 2,35 | 135,89 | 0,01 |
| PDE3B | phosphodiesterase 3B [Source:HGNC Symbol;Acc:HGNC:8779] | 32,45 | 86,87 | 1,42 | 54,42 | 0,03 |
| PDE4DIP | phosphodiesterase 4D interacting protein [Source:HGNC Symbol;Acc:HGNC:15580] | 930,08 | 381,21 | 1,29 | 548,86 | 0,03 |
| PDE5A | phosphodiesterase 5A [Source:HGNC Symbol;Acc:HGNC:8784] | 25,94 | 8,03 | 1,69 | 17,91 | 0,04 |
| PDE9A | phosphodiesterase 9A [Source:HGNC Symbol;Acc:HGNC:8795] | 41,73 | 3,77 | 3,47 | 37,96 | 0,00 |
| PDGFA | platelet derived growth factor subunit A [Source:HGNC Symbol;Acc:HGNC:8799] | 23,12 | 6,31 | 1,87 | 16,80 | 0,04 |
| PDGFB | platelet derived growth factor subunit B [Source:HGNC Symbol;Acc:HGNC:8800] | 26,21 | 1,11 | 4,56 | 25,10 | 0,01 |
| PDGFD | platelet derived growth factor D [Source:HGNC Symbol;Acc:HGNC:30620] | 397,70 | 106,92 | 1,90 | 290,78 | 0,01 |
| PDGFRB | platelet derived growth factor receptor beta [Source:HGNC Symbol;Acc:HGNC:8804] | 4,40 | 32,45 | 2,88 | 28,05 | 0,01 |
| PDK1 | pyruvate dehydrogenase kinase 1 [Source:HGNC Symbol;Acc:HGNC:8809] | 84,22 | 30,67 | 1,46 | 53,54 | 0,03 |
| PDK4 | pyruvate dehydrogenase kinase 4 [Source:HGNC Symbol;Acc:HGNC:8812] | 4,56 | 41,58 | 3,19 | 37,02 | 0,01 |
| PDLIM1 | PDZ and LIM domain 1 [Source:HGNC Symbol;Acc:HGNC:2067] | 740,32 | 243,01 | 1,61 | 497,30 | 0,02 |

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| PDLIM3 | PDZ and LIM domain 3 [Source:NCBI gene;Acc:100548391] | 587,51 | 187,81 | 1,65 | 399,70 | 0,02 |
| PENK | proenkephalin [Source:HGNC Symbol;Acc:HGNC:8831] | 523,91 | 53,65 | 3,29 | 470,26 | 0,00 |
| PER3 | period circadian regulator 3 [Source:HGNC Symbol;Acc:HGNC:8847] | 20,02 | 4,87 | 2,04 | 15,15 | 0,04 |
| PFKM | phosphofructokinase, muscle [Source:HGNC Symbol;Acc:HGNC:8877] | 694,79 | 215,72 | 1,69 | 479,07 | 0,02 |
| PGF | placental growth factor [Source:HGNC Symbol;Acc:HGNC:8893] | 13,51 | 227,79 | 4,08 | 214,27 | 0,00 |
| PGLS | 6-phosphogluconolactonase [Source:HGNC Symbol;Acc:HGNC:8903] | 55,57 | 20,60 | 1,43 | 34,97 | 0,03 |
| PHKB | phosphorylase kinase regulatory subunit beta [Source:HGNC Symbol;Acc:HGNC:8927] | 116,45 | 46,18 | 1,33 | 70,27 | 0,03 |
| PHLDB2 | pleckstrin homology like domain family B member 2 [Source:HGNC Symbol;Acc:HGNC:29573] | 147,11 | 68,05 | 1,11 | 79,06 | 0,04 |
| PHLPP1 | PH domain and leucine rich repeat protein phosphatase 1 [Source:HGNC Symbol;Acc:HGNC:20610] | 65,77 | 26,19 | 1,33 | 39,58 | 0,03 |
| PIK3C2B | phosphatidylinositol-4-phosphate 3-kinase catalytic subunit type 2 beta [Source:HGNC Symbol;Acc:HGNC:8972] | 138,26 | 54,32 | 1,35 | 83,95 | 0,03 |
| PIK3CB | phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit beta [Source:HGNC Symbol;Acc:HGNC:8976] | 83,13 | 34,66 | 1,26 | 48,47 | 0,03 |
| PKD1 | polycystin 1, transient receptor potential channel interacting [Source:HGNC Symbol;Acc:HGNC:9008] | 9,12 | 27,96 | 1,62 | 18,84 | 0,04 |
| PKDCC | protein kinase domain containing, cytoplasmic [Source:HGNC Symbol;Acc:HGNC:25123] | 4,56 | 19,43 | 2,09 | 14,88 | 0,04 |
| PLA2G4A | phospholipase A2 group IVA [Source:HGNC Symbol;Acc:HGNC:9035] | 20,13 | 54,15 | 1,43 | 34,02 | 0,03 |
| PLBD1 | phospholipase B domain containing 1 [Source:HGNC Symbol;Acc:HGNC:26215] | 51,93 | 16,56 | 1,65 | 35,37 | 0,02 |
| PLCD1 | phospholipase C delta 1 [Source:HGNC Symbol;Acc:HGNC:9060] | 4,94 | 39,92 | 3,02 | 34,98 | 0,01 |
| PLEKHH2 | pleckstrin homology, MyTH4 and FERM domain containing H2 [Source:HGNC Symbol;Acc:HGNC:30506] | 2,82 | 22,15 | 2,97 | 19,33 | 0,02 |
| PLEKHN1 | pleckstrin homology domain containing N1 [Source:HGNC Symbol;Acc:HGNC:25284] | 18,02 | 2,55 | 2,82 | 15,47 | 0,03 |
| PLK1 | polo like kinase 1 [Source:HGNC Symbol;Acc:HGNC:9077] | 34,51 | 13,18 | 1,39 | 21,33 | 0,04 |
| PLOD2 | procollagen-lysine,2-oxoglutarate 5-dioxygenase 2 [Source:HGNC Symbol;Acc:HGNC:9082] | 438,34 | 1293,58 | 1,56 | 855,24 | 0,02 |
| PLPP7 | phospholipid phosphatase 7 (inactive) [Source:NCBI gene;Acc:100538597] | 32,34 | 4,93 | 2,71 | 27,41 | 0,01 |
| PLS3 | plastin 3 [Source:HGNC Symbol;Acc:HGNC:9091] | 1465,28 | 529,77 | 1,47 | 935,51 | 0,02 |
| PLXDC1 | plexin domain containing 1 [Source:HGNC Symbol;Acc:HGNC:20945] | 0,76 | 29,95 | 5,30 | 29,19 | 0,01 |
| PLXDC2 | plexin domain containing 2 [Source:HGNC Symbol;Acc:HGNC:21013] | 9,82 | 30,34 | 1,63 | 20,52 | 0,03 |
| PLXNA1 | plexin A1 [Source:HGNC Symbol;Acc:HGNC:9099] | 558,97 | 175,68 | 1,67 | 383,28 | 0,02 |
| PLXNA2 | plexin A2 [Source:HGNC Symbol;Acc:HGNC:9100] | 15,03 | 0,89 | 4,08 | 14,15 | 0,04 |
| PM20D2 | peptidase M20 domain containing 2 [Source:HGNC Symbol;Acc:HGNC:21408] | 59,80 | 23,31 | 1,36 | 36,49 | 0,03 |
| PODN | podocan [Source:HGNC Symbol;Acc:HGNC:23174] | 15,30 | 193,35 | 3,66 | 178,04 | 0,00 |
| POGLUT3 | protein O-glucosyltransferase 3 [Source:NCBI gene;Acc:100539901] | 59,53 | 197,78 | 1,73 | 138,25 | 0,02 |
| POGZ | pogo transposable element derived with ZNF domain [Source:HGNC Symbol;Acc:HGNC:18801] | 106,90 | 52,27 | 1,03 | 54,63 | 0,05 |
| POLDIP2 | DNA polymerase delta interacting protein 2 [Source:HGNC Symbol;Acc:HGNC:23781] | 136,42 | 59,96 | 1,19 | 76,45 | 0,03 |
| POMK | protein O-mannose kinase [Source:HGNC Symbol;Acc:HGNC:26267] | 16,17 | 42,80 | 1,40 | 26,63 | 0,03 |
| POPDC2 | popeye domain containing 2 [Source:NCBI gene;Acc:100545001] | 275,55 | 35,77 | 2,95 | 239,78 | 0,00 |
| POSTN | periostin [Source:HGNC Symbol;Acc:HGNC:16953] | 214,34 | 467,75 | 1,13 | 253,41 | 0,04 |
| PPL | periplakin [Source:HGNC Symbol;Acc:HGNC:9273] | 20,13 | 58,91 | 1,55 | 38,78 | 0,02 |
| PPM1K | protein phosphatase, Mg2+/Mn2+ dependent 1K [Source:HGNC Symbol;Acc:HGNC:25415] | 39,18 | 7,31 | 2,42 | 31,87 | 0,01 |
| PPP1R12B | protein phosphatase 1 regulatory subunit 12B [Source:NCBI gene;Acc:104914452] | 45,09 | 12,62 | 1,84 | 32,47 | 0,02 |
| PPP1R14C | protein phosphatase 1 regulatory inhibitor subunit 14C [Source:HGNC Symbol;Acc:HGNC:14952] | 43,25 | 10,41 | 2,05 | 32,84 | 0,01 |
| PPP2R2B | protein phosphatase 2 regulatory subunit Bbeta [Source:HGNC Symbol;Acc:HGNC:9305] | 8,84 | 39,20 | 2,15 | 30,36 | 0,01 |
| PRAG1 | PEAK1 related, kinase-activating pseudokinase 1 [Source:HGNC Symbol;Acc:HGNC:25438] | 0,81 | 45,85 | 5,82 | 45,03 | 0,00 |
| PRELP | proline and arginine rich end leucine rich repeat protein [Source:HGNC Symbol;Acc:HGNC:9357] | 161,16 | 337,64 | 1,07 | 176,48 | 0,04 |
| PRKAB1 | protein kinase AMP-activated non-catalytic subunit beta 1 [Source:HGNC Symbol;Acc:HGNC:9378] | 181,78 | 80,56 | 1,17 | 101,22 | 0,04 |
| PRKCQ | protein kinase C theta [Source:HGNC Symbol;Acc:HGNC:9410] | 55,40 | 20,49 | 1,44 | 34,92 | 0,03 |

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|----------|---|---------|--------|------|--------|------|
| PRRX1 | paired related homeobox 1 [Source:HGNC Symbol;Acc:HGNC:9142] | 111,78 | 293,18 | 1,39 | 181,39 | 0,03 |
| PRRX2 | paired related homeobox 2 [Source:NCBI gene;Acc:100547648] | 7,05 | 101,82 | 3,85 | 94,77 | 0,00 |
| PRSS23 | serine protease 23 [Source:NCBI gene;Acc:100550122] | 90,67 | 34,66 | 1,39 | 56,01 | 0,03 |
| PRSS35 | serine protease 35 [Source:NCBI gene;Acc:100544541] | 55,84 | 217,49 | 1,96 | 161,65 | 0,01 |
| PTGES | prostaglandin E synthase [Source:HGNC Symbol;Acc:HGNC:9599] | 7,05 | 162,78 | 4,53 | 155,73 | 0,00 |
| PTGS2 | prostaglandin-endoperoxide synthase 2 [Source:HGNC Symbol;Acc:HGNC:9605] | 30,77 | 279,11 | 3,18 | 248,35 | 0,00 |
| PTN | pleiotrophin [Source:HGNC Symbol;Acc:HGNC:9630] | 0,33 | 38,54 | 6,89 | 38,21 | 0,00 |
| PTPN4 | protein tyrosine phosphatase non-receptor type 4 [Source:HGNC Symbol;Acc:HGNC:9656] | 57,30 | 25,64 | 1,16 | 31,67 | 0,04 |
| PTPRG | protein tyrosine phosphatase receptor type G [Source:HGNC Symbol;Acc:HGNC:9671] | 247,82 | 122,25 | 1,02 | 125,57 | 0,05 |
| PTPRQ | protein tyrosine phosphatase receptor type Q [Source:HGNC Symbol;Acc:HGNC:9679] | 80,53 | 5,04 | 4,00 | 75,49 | 0,00 |
| PTPRT | protein tyrosine phosphatase receptor type T [Source:HGNC Symbol;Acc:HGNC:9682] | 23,22 | 3,77 | 2,62 | 19,46 | 0,02 |
| RAB32 | RAB32, member RAS oncogene family [Source:HGNC Symbol;Acc:HGNC:9772] | 7,33 | 26,80 | 1,87 | 19,47 | 0,03 |
| RAB3IL1 | RAB3A interacting protein like 1 [Source:HGNC Symbol;Acc:HGNC:9780] | 26,70 | 62,62 | 1,23 | 35,92 | 0,04 |
| RACGAP1 | Rac GTPase activating protein 1 [Source:HGNC Symbol;Acc:HGNC:9804] | 33,26 | 7,70 | 2,11 | 25,57 | 0,02 |
| RALGPS2 | Ral GEF with PH domain and SH3 binding motif 2 [Source:HGNC Symbol;Acc:HGNC:30279] | 307,89 | 57,69 | 2,42 | 250,20 | 0,01 |
| RAP1GAP2 | RAP1 GTPase activating protein 2 [Source:NCBI gene;Acc:100547752] | 17,20 | 2,49 | 2,79 | 14,71 | 0,04 |
| RAPGEF1 | Rap guanine nucleotide exchange factor 1 [Source:HGNC Symbol;Acc:HGNC:4568] | 203,49 | 51,05 | 1,99 | 152,44 | 0,01 |
| RAPH1 | Ras association (RalGDS/AF-6) and pleckstrin homology domains 1 [Source:HGNC Symbol;Acc:HGNC:14436] | 118,19 | 49,94 | 1,24 | 68,24 | 0,03 |
| RAPSN | receptor associated protein of the synapse [Source:HGNC Symbol;Acc:HGNC:9863] | 230,84 | 24,58 | 3,23 | 206,25 | 0,00 |
| RASA1 | RAS p21 protein activator 1 [Source:HGNC Symbol;Acc:HGNC:9871] | 72,44 | 34,00 | 1,09 | 38,45 | 0,04 |
| RASA3 | RAS p21 protein activator 3 [Source:NCBI gene;Acc:100547617] | 150,58 | 59,36 | 1,34 | 91,23 | 0,03 |
| RASAL2 | RAS protein activator like 2 [Source:HGNC Symbol;Acc:HGNC:9874] | 24,42 | 5,37 | 2,18 | 19,05 | 0,03 |
| RASD1 | ras related dexamethasone induced 1 [Source:HGNC Symbol;Acc:HGNC:15828] | 2,33 | 22,42 | 3,26 | 20,09 | 0,02 |
| RASGEF1B | RasGEF domain family member 1B [Source:HGNC Symbol;Acc:HGNC:24881] | 46,29 | 12,57 | 1,88 | 33,72 | 0,02 |
| RASSF3 | Ras association domain family member 3 [Source:HGNC Symbol;Acc:HGNC:14271] | 893,12 | 381,21 | 1,23 | 511,91 | 0,03 |
| RBM20 | RNA binding motif protein 20 [Source:HGNC Symbol;Acc:HGNC:27424] | 27,95 | 4,15 | 2,75 | 23,79 | 0,01 |
| RBM24 | RNA binding motif protein 24 [Source:HGNC Symbol;Acc:HGNC:21539] | 163,82 | 36,60 | 2,16 | 127,22 | 0,01 |
| RBM38 | RNA binding motif protein 38 [Source:HGNC Symbol;Acc:HGNC:15818] | 74,18 | 13,73 | 2,43 | 60,45 | 0,01 |
| RCC1 | regulator of chromosome condensation 1 [Source:NCBI gene;Acc:100545702] | 123,83 | 57,20 | 1,11 | 66,63 | 0,04 |
| RDM1 | RAD52 motif containing 1 [Source:HGNC Symbol;Acc:HGNC:19950] | 38,80 | 15,50 | 1,32 | 23,30 | 0,04 |
| REEP1 | receptor accessory protein 1 [Source:HGNC Symbol;Acc:HGNC:25786] | 87,80 | 24,92 | 1,82 | 62,88 | 0,02 |
| RET | ret proto-oncogene [Source:HGNC Symbol;Acc:HGNC:9967] | 11,18 | 39,26 | 1,81 | 28,08 | 0,02 |
| RFLNB | refilin B [Source:HGNC Symbol;Acc:HGNC:28705] | 408,71 | 97,84 | 2,06 | 310,88 | 0,01 |
| RGCC | regulator of cell cycle [Source:HGNC Symbol;Acc:HGNC:20369] | 1,25 | 34,66 | 4,80 | 33,41 | 0,01 |
| RGL1 | ral guanine nucleotide dissociation stimulator like 1 [Source:HGNC Symbol;Acc:HGNC:30281] | 17,64 | 85,82 | 2,28 | 68,19 | 0,01 |
| RGMA | repulsive guidance molecule BMP co-receptor a [Source:HGNC Symbol;Acc:HGNC:30308] | 180,15 | 66,05 | 1,45 | 114,10 | 0,02 |
| RGN | regucalcin [Source:HGNC Symbol;Acc:HGNC:9989] | 21,76 | 58,64 | 1,43 | 36,88 | 0,03 |
| RHBDF1 | rhomboid 5 homolog 1 [Source:HGNC Symbol;Acc:HGNC:20561] | 189,38 | 76,35 | 1,31 | 113,03 | 0,03 |
| RHOB | ras homolog family member B [Source:NCBI gene;Acc:100542519] | 1352,95 | 562,05 | 1,27 | 790,90 | 0,03 |
| RNF20 | ring finger protein 20 [Source:HGNC Symbol;Acc:HGNC:10062] | 278,64 | 105,03 | 1,41 | 173,61 | 0,03 |
| RNF208 | ring finger protein 208 [Source:HGNC Symbol;Acc:HGNC:25420] | 18,61 | 4,04 | 2,20 | 14,57 | 0,04 |
| ROR1 | receptor tyrosine kinase like orphan receptor 1 [Source:NCBI gene;Acc:100551116] | 8,57 | 76,91 | 3,17 | 68,33 | 0,00 |
| RPA2 | replication protein A2 [Source:NCBI gene;Acc:100542097] | 105,16 | 49,28 | 1,09 | 55,88 | 0,04 |

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|---------|---|--------|---------|-------|--------|------|
| RPL10A | ribosomal protein L10a [Source:NCBI gene;Acc:100544053] | 379,63 | 811,09 | 1,10 | 431,47 | 0,04 |
| RPL11 | ribosomal protein L11 [Source:HGNC Symbol;Acc:HGNC:10301] | 407,25 | 927,04 | 1,19 | 519,79 | 0,03 |
| RPL12 | ribosomal protein L12 [Source:HGNC Symbol;Acc:HGNC:10302] | 261,39 | 558,39 | 1,10 | 297,01 | 0,04 |
| RPL22L1 | ribosomal protein L22 like 1 [Source:HGNC Symbol;Acc:HGNC:27610] | 31,04 | 118,99 | 1,94 | 87,95 | 0,01 |
| RPL27A | ribosomal protein L27a [Source:HGNC Symbol;Acc:HGNC:10329] | 340,72 | 712,32 | 1,06 | 371,60 | 0,04 |
| RPL30 | ribosomal protein L30 [Source:HGNC Symbol;Acc:HGNC:10333] | 223,57 | 485,69 | 1,12 | 262,13 | 0,04 |
| RPL31 | ribosomal protein L31 [Source:HGNC Symbol;Acc:HGNC:10334] | 215,91 | 448,82 | 1,06 | 232,90 | 0,04 |
| RPS15A | ribosomal protein S15a [Source:NCBI gene;Acc:100543844] | 222,86 | 558,78 | 1,33 | 335,92 | 0,03 |
| RPS16 | ribosomal protein S16 [Source:HGNC Symbol;Acc:HGNC:10396] | 234,36 | 513,16 | 1,13 | 278,79 | 0,04 |
| RPS20 | ribosomal protein S20 [Source:HGNC Symbol;Acc:HGNC:10405] | 396,50 | 872,44 | 1,14 | 475,94 | 0,04 |
| RPS21 | ribosomal protein S21 [Source:NCBI gene;Acc:100543583] | 82,75 | 173,91 | 1,07 | 91,16 | 0,04 |
| RPS8 | ribosomal protein S8 [Source:HGNC Symbol;Acc:HGNC:10441] | 734,89 | 1531,66 | 1,06 | 796,77 | 0,04 |
| RRBP1 | ribosome binding protein 1 [Source:HGNC Symbol;Acc:HGNC:10448] | 276,04 | 609,89 | 1,14 | 333,85 | 0,04 |
| RSPO3 | R-spondin 3 [Source:HGNC Symbol;Acc:HGNC:20866] | 3,74 | 19,71 | 2,40 | 15,97 | 0,04 |
| RSPO4 | R-spondin 4 [Source:HGNC Symbol;Acc:HGNC:16175] | 1,36 | 23,03 | 4,09 | 21,68 | 0,02 |
| RUNX1T1 | RUNX1 partner transcriptional co-repressor 1 [Source:HGNC Symbol;Acc:HGNC:1535] | 6,73 | 28,07 | 2,06 | 21,34 | 0,02 |
| RUSC2 | RUN and SH3 domain containing 2 [Source:HGNC Symbol;Acc:HGNC:23625] | 140,92 | 30,12 | 2,23 | 110,80 | 0,01 |
| RYR3 | ryanodine receptor 3 [Source:HGNC Symbol;Acc:HGNC:10485] | 58,12 | 12,29 | 2,24 | 45,82 | 0,01 |
| S100A11 | S100 calcium binding protein A11 [Source:HGNC Symbol;Acc:HGNC:10488] | 225,41 | 511,22 | 1,18 | 285,81 | 0,03 |
| S100A4 | S100 calcium binding protein A4 [Source:HGNC Symbol;Acc:HGNC:10494] | 47,86 | 100,49 | 1,07 | 52,63 | 0,05 |
| SACS | sacsin molecular chaperone [Source:HGNC Symbol;Acc:HGNC:10519] | 144,77 | 42,63 | 1,76 | 102,14 | 0,02 |
| SALL1 | spalt like transcription factor 1 [Source:HGNC Symbol;Acc:HGNC:10524] | 43,79 | 7,42 | 2,56 | 36,37 | 0,01 |
| SAMD11 | sterile alpha motif domain containing 11 [Source:HGNC Symbol;Acc:HGNC:28706] | 132,24 | 28,96 | 2,19 | 103,28 | 0,01 |
| SAMD4A | sterile alpha motif domain containing 4A [Source:HGNC Symbol;Acc:HGNC:23023] | 310,66 | 141,02 | 1,14 | 169,63 | 0,04 |
| SARDH | sarcosine dehydrogenase [Source:HGNC Symbol;Acc:HGNC:10536] | 449,84 | 44,74 | 3,33 | 405,11 | 0,00 |
| SCARA3 | scavenger receptor class A member 3 [Source:HGNC Symbol;Acc:HGNC:19000] | 0,03 | 101,21 | 11,87 | 101,19 | 0,00 |
| SCARA5 | scavenger receptor class A member 5 [Source:HGNC Symbol;Acc:HGNC:28701] | 3,09 | 35,77 | 3,53 | 32,68 | 0,01 |
| SCARB1 | scavenger receptor class B member 1 [Source:NCBI gene;Acc:100550769] | 58,28 | 142,68 | 1,29 | 84,41 | 0,03 |
| SCD | stearoyl-CoA desaturase [Source:NCBI gene;Acc:100547172] | 183,68 | 41,14 | 2,16 | 142,54 | 0,01 |
| SCD5 | stearoyl-CoA desaturase 5 [Source:HGNC Symbol;Acc:HGNC:21088] | 61,59 | 13,45 | 2,19 | 48,13 | 0,01 |
| SCG3 | secretogranin III [Source:HGNC Symbol;Acc:HGNC:13707] | 32,40 | 11,24 | 1,53 | 21,16 | 0,04 |
| SCG5 | secretogranin V [Source:HGNC Symbol;Acc:HGNC:10816] | 4,18 | 24,97 | 2,58 | 20,79 | 0,02 |
| SCIN | scinderin [Source:HGNC Symbol;Acc:HGNC:21695] | 0,11 | 24,97 | 7,85 | 24,86 | 0,01 |
| SCN4A | sodium voltage-gated channel alpha subunit 4 [Source:HGNC Symbol;Acc:HGNC:10591] | 26,32 | 2,55 | 3,37 | 23,77 | 0,01 |
| SCN4B | sodium voltage-gated channel beta subunit 4 [Source:HGNC Symbol;Acc:HGNC:10592] | 7,60 | 29,95 | 1,98 | 22,36 | 0,03 |
| SCNN1A | sodium channel epithelial 1 alpha subunit [Source:NCBI gene;Acc:100546783] | 29,52 | 10,35 | 1,51 | 19,17 | 0,04 |
| SCRIB | scribble planar cell polarity protein [Source:HGNC Symbol;Acc:HGNC:30377] | 146,62 | 37,65 | 1,96 | 108,97 | 0,01 |
| SDC1 | syndecan 1 [Source:HGNC Symbol;Acc:HGNC:10658] | 62,29 | 146,39 | 1,23 | 84,10 | 0,03 |
| SDC2 | syndecan 2 [Source:HGNC Symbol;Acc:HGNC:10659] | 92,41 | 244,62 | 1,40 | 152,21 | 0,03 |
| SDHAF4 | succinate dehydrogenase complex assembly factor 4 [Source:HGNC Symbol;Acc:HGNC:20957] | 42,00 | 18,99 | 1,15 | 23,01 | 0,05 |
| SDK2 | sidekick cell adhesion molecule 2 [Source:HGNC Symbol;Acc:HGNC:19308] | 683,56 | 201,21 | 1,76 | 482,35 | 0,02 |
| SEC24D | SEC24 homolog D, COPII coat complex component [Source:NCBI gene;Acc:100540588] | 87,85 | 179,67 | 1,03 | 91,82 | 0,05 |

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|----------|---|---------|---------|------|--------|------|
| SEMA3B | semaphorin 3B [Source:HGNC Symbol;Acc:HGNC:10724] | 8,09 | 32,72 | 2,02 | 24,64 | 0,02 |
| SERHL2 | serine hydrolase like 2 [Source:NCBI gene;Acc:100549399] | 15,03 | 40,03 | 1,41 | 25,00 | 0,04 |
| SERINC1 | serine incorporator 1 [Source:NCBI gene;Acc:100548079] | 1391,32 | 637,02 | 1,13 | 754,30 | 0,04 |
| SERINC2 | serine incorporator 2 [Source:HGNC Symbol;Acc:HGNC:23231] | 7,98 | 29,40 | 1,88 | 21,42 | 0,03 |
| SFRP2 | secreted frizzled related protein 2 [Source:HGNC Symbol;Acc:HGNC:10777] | 393,63 | 121,81 | 1,69 | 271,82 | 0,02 |
| SFRP4 | secreted frizzled related protein 4 [Source:HGNC Symbol;Acc:HGNC:10778] | 13,62 | 58,64 | 2,11 | 45,02 | 0,01 |
| SGCG | sarcoglycan gamma [Source:HGNC Symbol;Acc:HGNC:10809] | 102,56 | 26,96 | 1,93 | 75,59 | 0,01 |
| SH2B2 | SH2B adaptor protein 2 [Source:HGNC Symbol;Acc:HGNC:17381] | 23,71 | 6,98 | 1,77 | 16,74 | 0,04 |
| SH2D3C | SH2 domain containing 3C [Source:HGNC Symbol;Acc:HGNC:16884] | 195,57 | 23,14 | 3,08 | 172,42 | 0,00 |
| SH3BGRL | SH3 domain binding glutamate rich protein like [Source:NCBI gene;Acc:100541924] | 116,07 | 44,90 | 1,37 | 71,17 | 0,03 |
| SH3PXD2B | SH3 and PX domains 2B [Source:HGNC Symbol;Acc:HGNC:29242] | 22,63 | 101,38 | 2,16 | 78,75 | 0,01 |
| SHC1 | SHC adaptor protein 1 [Source:HGNC Symbol;Acc:HGNC:10840] | 113,46 | 266,05 | 1,23 | 152,58 | 0,03 |
| SHISA2 | shisa family member 2 [Source:HGNC Symbol;Acc:HGNC:20366] | 571,07 | 224,46 | 1,35 | 346,60 | 0,03 |
| SHROOM3 | shroom family member 3 [Source:HGNC Symbol;Acc:HGNC:30422] | 138,43 | 13,79 | 3,33 | 124,64 | 0,00 |
| SIM2 | SIM bHLH transcription factor 2 [Source:HGNC Symbol;Acc:HGNC:10883] | 72,28 | 12,57 | 2,52 | 59,71 | 0,01 |
| SIPA1L2 | signal induced proliferation associated 1 like 2 [Source:HGNC Symbol;Acc:HGNC:23800] | 52,42 | 11,30 | 2,21 | 41,12 | 0,01 |
| SIX4 | SIX homeobox 4 [Source:NCBI gene;Acc:100545734] | 146,95 | 22,20 | 2,73 | 124,74 | 0,00 |
| SLC16A2 | solute carrier family 16 member 2 [Source:HGNC Symbol;Acc:HGNC:10923] | 23,60 | 50,16 | 1,09 | 26,56 | 0,05 |
| SLC16A3 | solute carrier family 16 member 3 [Source:NCBI gene;Acc:100542493] | 164,69 | 337,36 | 1,03 | 172,67 | 0,05 |
| SLC1A6 | solute carrier family 1 member 6 [Source:HGNC Symbol;Acc:HGNC:10944] | 0,05 | 16,67 | 8,26 | 16,61 | 0,03 |
| SLC20A2 | solute carrier family 20 member 2 [Source:NCBI gene;Acc:100539038] | 101,36 | 44,41 | 1,19 | 56,96 | 0,04 |
| SLC25A4 | solute carrier family 25 member 4 [Source:HGNC Symbol;Acc:HGNC:10990] | 156,33 | 51,88 | 1,59 | 104,45 | 0,02 |
| SLC26A5 | solute carrier family 26 member 5 [Source:HGNC Symbol;Acc:HGNC:9359] | 22,25 | 53,04 | 1,25 | 30,80 | 0,04 |
| SLC37A2 | solute carrier family 37 member 2 [Source:HGNC Symbol;Acc:HGNC:20644] | 14,87 | 43,69 | 1,55 | 28,82 | 0,03 |
| SLC43A2 | solute carrier family 43 member 2 [Source:HGNC Symbol;Acc:HGNC:23087] | 5,91 | 32,17 | 2,44 | 26,25 | 0,01 |
| SLC44A3 | solute carrier family 44 member 3 [Source:HGNC Symbol;Acc:HGNC:28689] | 2,06 | 21,59 | 3,39 | 19,53 | 0,02 |
| SLC8A3 | solute carrier family 8 member A3 [Source:HGNC Symbol;Acc:HGNC:11070] | 19,97 | 2,93 | 2,77 | 17,03 | 0,03 |
| SLC9A7 | solute carrier family 9 member A7 [Source:HGNC Symbol;Acc:HGNC:17123] | 46,99 | 14,34 | 1,71 | 32,65 | 0,02 |
| SLIT1 | slit guidance ligand 1 [Source:HGNC Symbol;Acc:HGNC:11085] | 504,98 | 28,24 | 4,16 | 476,74 | 0,00 |
| SMARCD2 | SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily d, member 2 [Source:HGNC Symbol;Acc:HGNC:11107] | 55,40 | 115,22 | 1,06 | 59,82 | 0,05 |
| SMTN | smoothelin [Source:HGNC Symbol;Acc:HGNC:11126] | 448,43 | 112,68 | 1,99 | 335,76 | 0,01 |
| SMYD1 | SET and MYND domain containing 1 [Source:NCBI gene;Acc:100548953] | 458,80 | 90,20 | 2,35 | 368,60 | 0,01 |
| SMYD2 | SET and MYND domain containing 2 [Source:NCBI gene;Acc:100538978] | 66,53 | 27,08 | 1,30 | 39,45 | 0,03 |
| SNAI1 | snail family transcriptional repressor 1 [Source:NCBI gene;Acc:100542762] | 74,94 | 30,73 | 1,29 | 44,21 | 0,03 |
| SNX21 | sorting nexin family member 21 [Source:HGNC Symbol;Acc:HGNC:16154] | 136,74 | 44,96 | 1,60 | 91,78 | 0,02 |
| SNX30 | sorting nexin family member 30 [Source:HGNC Symbol;Acc:HGNC:23685] | 6,29 | 24,09 | 1,94 | 17,79 | 0,04 |
| SNX5 | sorting nexin 5 [Source:HGNC Symbol;Acc:HGNC:14969] | 10,36 | 64,39 | 2,64 | 54,03 | 0,01 |
| SNX7 | sorting nexin 7 [Source:HGNC Symbol;Acc:HGNC:14971] | 68,75 | 149,22 | 1,12 | 80,47 | 0,04 |
| SOD3 | superoxide dismutase 3 [Source:HGNC Symbol;Acc:HGNC:11181] | 9,82 | 32,50 | 1,73 | 22,68 | 0,03 |
| SORBS1 | sorbin and SH3 domain containing 1 [Source:HGNC Symbol;Acc:HGNC:14565] | 109,29 | 39,48 | 1,47 | 69,81 | 0,02 |
| SOX8 | SRY-box transcription factor 8 [Source:HGNC Symbol;Acc:HGNC:11203] | 81,99 | 16,00 | 2,36 | 65,99 | 0,01 |
| SOX9 | SRY-box transcription factor 9 [Source:HGNC Symbol;Acc:HGNC:11204] | 6,19 | 26,13 | 2,08 | 19,95 | 0,03 |
| SPARC | secreted protein acidic and cysteine rich [Source:HGNC Symbol;Acc:HGNC:11219] | 3094,16 | 6930,38 | 1,16 | 3836,2 | 0,04 |

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|---------|--|---------|---------|------|--------|------|
| SPART | spartin [Source:HGNC Symbol;Acc:HGNC:18514] | 299,70 | 83,27 | 1,85 | 216,42 | 0,01 |
| SPECC1 | sperm antigen with calponin homology and coiled-coil domains 1 [Source:HGNC Symbol;Acc:HGNC:30615] | 364,32 | 84,38 | 2,11 | 279,94 | 0,01 |
| SPON1 | spondin 1 [Source:HGNC Symbol;Acc:HGNC:11252] | 24,09 | 59,36 | 1,30 | 35,26 | 0,03 |
| SPON2 | spondin 2 [Source:HGNC Symbol;Acc:HGNC:11253] | 0,54 | 377,28 | 9,44 | 376,74 | 0,00 |
| SPP1 | secreted phosphoprotein 1 [Source:NCBI gene;Acc:100541448] | 45,15 | 137,31 | 1,60 | 92,17 | 0,02 |
| SPRED1 | sprouty related EVH1 domain containing 1 [Source:HGNC Symbol;Acc:HGNC:20249] | 33,43 | 75,80 | 1,18 | 42,37 | 0,04 |
| SPRY2 | sprouty RTK signaling antagonist 2 [Source:NCBI gene;Acc:100545563] | 81,23 | 32,72 | 1,31 | 48,51 | 0,03 |
| SPTAN1 | spectrin alpha, non-erythrocytic 1 [Source:NCBI gene;Acc:100545390] | 655,83 | 314,99 | 1,06 | 340,84 | 0,04 |
| SPTBN1 | spectrin beta, non-erythrocytic 1 [Source:NCBI gene;Acc:100539592] | 1191,25 | 454,69 | 1,39 | 736,56 | 0,03 |
| SRF | serum response factor [Source:HGNC Symbol;Acc:HGNC:11291] | 144,67 | 63,73 | 1,18 | 80,94 | 0,04 |
| SRL | sarcalumenin [Source:HGNC Symbol;Acc:HGNC:11295] | 393,36 | 90,80 | 2,11 | 302,55 | 0,01 |
| SRM | spermidine synthase [Source:HGNC Symbol;Acc:HGNC:11296] | 13,84 | 40,81 | 1,56 | 26,97 | 0,03 |
| SRPX | sushi repeat containing protein X-linked [Source:HGNC Symbol;Acc:HGNC:11309] | 20,95 | 59,47 | 1,51 | 38,52 | 0,03 |
| SSPN | sarcospan [Source:NCBI gene;Acc:100540204] | 117,32 | 251,04 | 1,10 | 133,72 | 0,04 |
| STAB1 | stabilin 1 [Source:HGNC Symbol;Acc:HGNC:18628] | 0,87 | 24,20 | 4,80 | 23,33 | 0,01 |
| STARD8 | StAR related lipid transfer domain containing 8 [Source:HGNC Symbol;Acc:HGNC:19161] | 98,54 | 35,60 | 1,47 | 62,94 | 0,02 |
| STC2 | stanniocalcin 2 [Source:HGNC Symbol;Acc:HGNC:11374] | 107,44 | 23,14 | 2,21 | 84,30 | 0,01 |
| STEAP3 | STEAP3 metalloredutase [Source:HGNC Symbol;Acc:HGNC:24592] | 67,12 | 12,18 | 2,46 | 54,94 | 0,01 |
| STK17A | serine/threonine kinase 17a [Source:HGNC Symbol;Acc:HGNC:11395] | 353,69 | 109,85 | 1,69 | 243,84 | 0,02 |
| STOM | stomatin [Source:HGNC Symbol;Acc:HGNC:3383] | 51,17 | 16,72 | 1,61 | 34,45 | 0,02 |
| STXBP5 | syntaxin binding protein 5 [Source:HGNC Symbol;Acc:HGNC:19665] | 11,67 | 35,55 | 1,61 | 23,88 | 0,03 |
| STYXL2 | dual specificity phosphatase 27, atypical [Source:NCBI gene;Acc:100543131] | 38,04 | 7,36 | 2,37 | 30,67 | 0,01 |
| SUCO | SUN domain containing ossification factor [Source:HGNC Symbol;Acc:HGNC:1240] | 58,55 | 27,96 | 1,07 | 30,59 | 0,05 |
| SULF1 | sulfatase 1 [Source:HGNC Symbol;Acc:HGNC:20391] | 5,37 | 149,94 | 4,80 | 144,57 | 0,00 |
| SVIL | supervillin [Source:HGNC Symbol;Acc:HGNC:11480] | 579,10 | 266,16 | 1,12 | 312,94 | 0,04 |
| SYBU | syntabulin [Source:HGNC Symbol;Acc:HGNC:26011] | 2,93 | 19,77 | 2,75 | 16,84 | 0,03 |
| SYNC | syncoilin, intermediate filament protein [Source:HGNC Symbol;Acc:HGNC:28897] | 172,29 | 45,85 | 1,91 | 126,44 | 0,01 |
| SYNE2 | spectrin repeat containing nuclear envelope protein 2 [Source:HGNC Symbol;Acc:HGNC:17084] | 167,35 | 59,91 | 1,48 | 107,44 | 0,02 |
| SYNJ2 | synaptojanin 2 [Source:HGNC Symbol;Acc:HGNC:11504] | 181,84 | 54,32 | 1,74 | 127,52 | 0,02 |
| SYNM | synemin [Source:HGNC Symbol;Acc:HGNC:24466] | 29,19 | 7,97 | 1,87 | 21,22 | 0,03 |
| SYNPO | synaptopodin [Source:HGNC Symbol;Acc:HGNC:30672] | 217,16 | 66,05 | 1,72 | 151,11 | 0,02 |
| SYNPO2 | synaptopodin 2 [Source:HGNC Symbol;Acc:HGNC:17732] | 216,62 | 29,18 | 2,89 | 187,44 | 0,00 |
| SYNPO2L | synaptopodin 2 like [Source:HGNC Symbol;Acc:HGNC:23532] | 55,51 | 10,63 | 2,38 | 44,88 | 0,01 |
| SYT12 | synaptotagmin 12 [Source:HGNC Symbol;Acc:HGNC:18381] | 0,60 | 15,28 | 4,68 | 14,68 | 0,04 |
| SYTL4 | synaptotagmin like 4 [Source:HGNC Symbol;Acc:HGNC:15588] | 13,13 | 33,50 | 1,35 | 20,37 | 0,04 |
| TACC1 | transforming acidic coiled-coil containing protein 1 [Source:HGNC Symbol;Acc:HGNC:11522] | 215,59 | 70,48 | 1,61 | 145,10 | 0,02 |
| TACC2 | transforming acidic coiled-coil containing protein 2 [Source:HGNC Symbol;Acc:HGNC:11523] | 1174,26 | 267,71 | 2,13 | 906,55 | 0,01 |
| TAOK3 | TAO kinase 3 [Source:HGNC Symbol;Acc:HGNC:18133] | 187,97 | 79,51 | 1,24 | 108,46 | 0,03 |
| TBX15 | T-box transcription factor 15 [Source:HGNC Symbol;Acc:HGNC:11594] | 44,88 | 12,85 | 1,80 | 32,03 | 0,02 |
| TBX18 | T-box transcription factor 18 [Source:HGNC Symbol;Acc:HGNC:11595] | 1,57 | 19,38 | 3,62 | 17,81 | 0,02 |
| TEAD3 | TEA domain transcription factor 3 [Source:HGNC Symbol;Acc:HGNC:11716] | 63,49 | 24,75 | 1,36 | 38,74 | 0,03 |
| TFEB | transcription factor EB [Source:NCBI gene;Acc:100545910] | 209,40 | 76,19 | 1,46 | 133,22 | 0,02 |
| TGFB1 | transforming growth factor beta induced [Source:NCBI gene;Acc:100539931] | 565,43 | 4669,73 | 3,05 | 4104,3 | 0,00 |

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|-----------|--|---------|---------|------|--------|------|
| TGFB2 | transforming growth factor beta receptor 2 [Source:HGNC Symbol;Acc:HGNC:11773] | 17,53 | 52,32 | 1,58 | 34,80 | 0,02 |
| THBS2 | thrombospondin 2 [Source:HGNC Symbol;Acc:HGNC:11786] | 3,74 | 144,18 | 5,27 | 140,44 | 0,00 |
| THBS4 | thrombospondin 4 [Source:HGNC Symbol;Acc:HGNC:11788] | 29,79 | 987,55 | 5,05 | 957,76 | 0,00 |
| THY1 | Thy-1 cell surface antigen [Source:NCBI gene;Acc:100538807] | 273,76 | 768,68 | 1,49 | 494,92 | 0,02 |
| THYN1 | thymocyte nuclear protein 1 [Source:NCBI gene;Acc:100540352] | 145,86 | 71,59 | 1,03 | 74,27 | 0,05 |
| TIMP3 | TIMP metalloproteinase inhibitor 3 [Source:NCBI gene;Acc:100539796] | 1143,01 | 337,03 | 1,76 | 805,98 | 0,02 |
| TJP1 | tight junction protein 1 [Source:HGNC Symbol;Acc:HGNC:11827] | 120,14 | 51,83 | 1,21 | 68,31 | 0,03 |
| TKT | transketolase [Source:NCBI gene;Acc:100545441] | 30,98 | 105,26 | 1,76 | 74,27 | 0,02 |
| TLCD3A | TLC domain containing 3A [Source:HGNC Symbol;Acc:HGNC:29646] | 261,28 | 85,54 | 1,61 | 175,73 | 0,02 |
| TLN2 | talin 2 [Source:HGNC Symbol;Acc:HGNC:15447] | 51,22 | 19,05 | 1,43 | 32,18 | 0,03 |
| TM4SF18 | transmembrane 4 L six family member 18 [Source:HGNC Symbol;Acc:HGNC:25181] | 29,19 | 9,63 | 1,60 | 19,56 | 0,04 |
| TMEFF2 | transmembrane protein with EGF like and two follistatin like domains 2 [Source:HGNC Symbol;Acc:HGNC:11867] | 19,48 | 4,98 | 1,97 | 14,50 | 0,05 |
| TMEM116 | transmembrane protein 116 [Source:NCBI gene;Acc:100547281] | 17,26 | 66,50 | 1,95 | 49,24 | 0,01 |
| TMEM119 | transmembrane protein 119 [Source:HGNC Symbol;Acc:HGNC:27884] | 2,06 | 93,52 | 5,50 | 91,46 | 0,00 |
| TMEM132C | transmembrane protein 132C [Source:HGNC Symbol;Acc:HGNC:25436] | 1,79 | 47,23 | 4,72 | 45,44 | 0,00 |
| TMEM19 | transmembrane protein 19 [Source:HGNC Symbol;Acc:HGNC:25605] | 47,86 | 18,05 | 1,41 | 29,81 | 0,03 |
| TMEM200A | transmembrane protein 200A [Source:NCBI gene;Acc:100543662] | 102,72 | 47,84 | 1,10 | 54,88 | 0,04 |
| TMEM204 | transmembrane protein 204 [Source:HGNC Symbol;Acc:HGNC:14158] | 3,91 | 49,17 | 3,65 | 45,26 | 0,00 |
| TMEM268 | transmembrane protein 268 [Source:NCBI gene;Acc:100540089] | 1,41 | 39,92 | 4,82 | 38,51 | 0,00 |
| TMEM38A | transmembrane protein 38A [Source:NCBI gene;Acc:100539425] | 294,11 | 81,28 | 1,86 | 212,83 | 0,01 |
| TMEM47 | transmembrane protein 47 [Source:HGNC Symbol;Acc:HGNC:18515] | 49,38 | 8,80 | 2,49 | 40,58 | 0,01 |
| TMEM64 | transmembrane protein 64 [Source:HGNC Symbol;Acc:HGNC:25441] | 107,98 | 35,21 | 1,62 | 72,77 | 0,02 |
| TMEM9 | transmembrane protein 9 [Source:HGNC Symbol;Acc:HGNC:18823] | 22,74 | 4,26 | 2,41 | 18,47 | 0,03 |
| TMTC2 | transmembrane O-mannosyltransferase targeting cadherins 2 [Source:HGNC Symbol;Acc:HGNC:25440] | 2,44 | 17,66 | 2,85 | 15,22 | 0,04 |
| TNFAIP8L3 | TNF alpha induced protein 8 like 3 [Source:HGNC Symbol;Acc:HGNC:20620] | 42,49 | 10,30 | 2,04 | 32,19 | 0,02 |
| TNFRSF19 | TNF receptor superfamily member 19 [Source:HGNC Symbol;Acc:HGNC:11915] | 23,28 | 3,65 | 2,67 | 19,62 | 0,02 |
| TNFRSF6B | TNF receptor superfamily member 6b [Source:HGNC Symbol;Acc:HGNC:11921] | 22,25 | 66,17 | 1,57 | 43,92 | 0,02 |
| TNKS1BP1 | tankyrase 1 binding protein 1 [Source:HGNC Symbol;Acc:HGNC:19081] | 55,08 | 199,05 | 1,85 | 143,97 | 0,01 |
| TNNC1 | troponin C1, slow skeletal and cardiac type [Source:HGNC Symbol;Acc:HGNC:11943] | 858,23 | 197,39 | 2,12 | 660,84 | 0,01 |
| TNNC2 | troponin C2, fast skeletal type [Source:NCBI gene;Acc:100544678] | 558,10 | 87,32 | 2,68 | 470,78 | 0,00 |
| TNNI1 | troponin I1, slow skeletal type [Source:HGNC Symbol;Acc:HGNC:11945] | 1720,59 | 514,32 | 1,74 | 7 | 0,02 |
| TNNI2 | troponin I2, fast skeletal type [Source:HGNC Symbol;Acc:HGNC:11946] | 1221,69 | 346,50 | 1,82 | 875,19 | 0,01 |
| TNNT2 | troponin T2, cardiac type [Source:HGNC Symbol;Acc:HGNC:11949] | 5088,61 | 1104,27 | 2,20 | 4 | 0,01 |
| TNNT3 | troponin T3, fast skeletal type [Source:HGNC Symbol;Acc:HGNC:11950] | 3029,53 | 748,80 | 2,02 | 2 | 0,01 |
| TOMM70 | translocase of outer mitochondrial membrane 70 [Source:HGNC Symbol;Acc:HGNC:11985] | 132,67 | 62,40 | 1,09 | 70,27 | 0,04 |
| TOP2A | DNA topoisomerase II alpha [Source:HGNC Symbol;Acc:HGNC:11989] | 136,31 | 55,76 | 1,29 | 80,55 | 0,03 |
| TOR2A | torsin family 2 member A [Source:HGNC Symbol;Acc:HGNC:11996] | 8,63 | 25,64 | 1,57 | 17,01 | 0,05 |
| TPM1 | tropomyosin 1 [Source:HGNC Symbol;Acc:HGNC:12010] | 6335,96 | 2497,51 | 1,34 | 5 | 0,03 |
| TPST2 | tyrosylprotein sulfotransferase 2 [Source:NCBI gene;Acc:100542914] | 35,98 | 15,34 | 1,23 | 20,64 | 0,05 |
| TRAK1 | trafficking kinesin protein 1 [Source:HGNC Symbol;Acc:HGNC:29947] | 92,30 | 38,54 | 1,26 | 53,77 | 0,03 |
| TRIM45 | tripartite motif containing 45 [Source:HGNC Symbol;Acc:HGNC:19018] | 83,78 | 25,47 | 1,72 | 58,31 | 0,02 |
| TRIM54 | tripartite motif containing 54 [Source:HGNC Symbol;Acc:HGNC:16008] | 187,75 | 48,84 | 1,94 | 138,92 | 0,01 |
| TRIM55 | tripartite motif containing 55 [Source:HGNC Symbol;Acc:HGNC:14215] | 443,93 | 91,03 | 2,29 | 352,90 | 0,01 |

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|---------|---|---------|--------|------|---------|------|
| TRIM63 | tripartite motif containing 63 [Source:HGNC Symbol;Acc:HGNC:16007] | 114,28 | 33,94 | 1,75 | 80,34 | 0,02 |
| TRIM8 | tripartite motif containing 8 [Source:HGNC Symbol;Acc:HGNC:15579] | 373,17 | 158,80 | 1,23 | 214,37 | 0,03 |
| TRPV2 | transient receptor potential cation channel subfamily V member 2 [Source:NCBI gene;Acc:100540299] | 284,39 | 82,39 | 1,79 | 202,01 | 0,02 |
| TSC22D3 | TSC22 domain family member 3 [Source:HGNC Symbol;Acc:HGNC:3051] | 88,78 | 36,65 | 1,28 | 52,12 | 0,03 |
| TSHZ2 | teashirt zinc finger homeobox 2 [Source:HGNC Symbol;Acc:HGNC:13010] | 11,23 | 83,16 | 2,89 | 71,93 | 0,00 |
| TSPAN12 | tetraspanin 12 [Source:HGNC Symbol;Acc:HGNC:21641] | 252,00 | 61,63 | 2,03 | 190,37 | 0,01 |
| TSPAN6 | tetraspanin 6 [Source:HGNC Symbol;Acc:HGNC:11858] | 77,22 | 205,69 | 1,41 | 128,48 | 0,03 |
| TTC29 | tetratricopeptide repeat domain 29 [Source:HGNC Symbol;Acc:HGNC:29936] | 0,16 | 67,94 | 8,71 | 67,77 | 0,00 |
| TTC9 | tetratricopeptide repeat domain 9 [Source:HGNC Symbol;Acc:HGNC:20267] | 93,28 | 28,02 | 1,74 | 65,26 | 0,02 |
| TUBB6 | tubulin beta 6 class V [Source:HGNC Symbol;Acc:HGNC:20776] | 769,46 | 308,46 | 1,32 | 461,00 | 0,03 |
| TUFT1 | tuftelin 1 [Source:HGNC Symbol;Acc:HGNC:12422] | 141,52 | 59,02 | 1,26 | 82,50 | 0,03 |
| TWF2 | twinfilin actin binding protein 2 [Source:HGNC Symbol;Acc:HGNC:9621] | 737,33 | 296,89 | 1,31 | 440,45 | 0,03 |
| TWIST2 | twist family bHLH transcription factor 2 [Source:NCBI gene;Acc:100547115] | 0,92 | 26,13 | 4,82 | 25,21 | 0,01 |
| UAP1 | UDP-N-acetylglucosamine pyrophosphorylase 1 [Source:HGNC Symbol;Acc:HGNC:12457] | 44,88 | 194,34 | 2,11 | 149,47 | 0,01 |
| UAP1L1 | UDP-N-acetylglucosamine pyrophosphorylase 1 like 1 [Source:HGNC Symbol;Acc:HGNC:28082] | 7,76 | 50,88 | 2,71 | 43,12 | 0,01 |
| UBXN4 | UBX domain protein 4 [Source:HGNC Symbol;Acc:HGNC:14860] | 567,05 | 265,16 | 1,10 | 301,89 | 0,04 |
| UCHL3 | ubiquitin C-terminal hydrolase L3 [Source:NCBI gene;Acc:100548021] | 97,62 | 43,91 | 1,15 | 53,71 | 0,04 |
| UCK1 | uridine-cytidine kinase 1 [Source:HGNC Symbol;Acc:HGNC:14859] | 144,45 | 53,10 | 1,44 | 91,35 | 0,02 |
| UGDH | UDP-glucose 6-dehydrogenase [Source:NCBI gene;Acc:100549207] | 95,50 | 326,45 | 1,77 | 230,95 | 0,02 |
| UNC45B | unc-45 myosin chaperone B [Source:HGNC Symbol;Acc:HGNC:14304] | 302,46 | 86,82 | 1,80 | 215,65 | 0,02 |
| UNC5A | unc-5 netrin receptor A [Source:HGNC Symbol;Acc:HGNC:12567] | 45,85 | 14,12 | 1,70 | 31,73 | 0,02 |
| USP13 | ubiquitin specific peptidase 13 [Source:HGNC Symbol;Acc:HGNC:12611] | 39,50 | 9,86 | 2,00 | 29,65 | 0,02 |
| USP25 | ubiquitin specific peptidase 25 [Source:HGNC Symbol;Acc:HGNC:12624] | 167,24 | 80,78 | 1,05 | 86,46 | 0,05 |
| USP28 | ubiquitin specific peptidase 28 [Source:HGNC Symbol;Acc:HGNC:12625] | 120,30 | 45,35 | 1,41 | 74,96 | 0,03 |
| USP6NL | USP6 N-terminal like [Source:NCBI gene;Acc:100538767] | 62,57 | 25,69 | 1,28 | 36,87 | 0,03 |
| VAC14 | VAC14 component of PIKFYVE complex [Source:HGNC Symbol;Acc:HGNC:25507] | 125,35 | 60,02 | 1,06 | 65,33 | 0,05 |
| VASH2 | vasohibin 2 [Source:HGNC Symbol;Acc:HGNC:25723] | 977,83 | 174,47 | 2,49 | 803,36 | 0,00 |
| VAV2 | vav guanine nucleotide exchange factor 2 [Source:HGNC Symbol;Acc:HGNC:12658] | 164,69 | 52,10 | 1,66 | 112,59 | 0,02 |
| VDR | vitamin D receptor [Source:HGNC Symbol;Acc:HGNC:12679] | 2,93 | 26,47 | 3,18 | 23,54 | 0,01 |
| VEGFA | vascular endothelial growth factor A [Source:HGNC Symbol;Acc:HGNC:12680] | 29,57 | 98,06 | 1,73 | 68,48 | 0,02 |
| VEGFC | vascular endothelial growth factor C [Source:HGNC Symbol;Acc:HGNC:12682] | 39,72 | 13,79 | 1,53 | 25,93 | 0,03 |
| VEPH1 | ventricular zone expressed PH domain containing 1 [Source:HGNC Symbol;Acc:HGNC:25735] | 57,36 | 13,23 | 2,12 | 44,12 | 0,01 |
| VSTM2L | V-set and transmembrane domain containing 2 like [Source:HGNC Symbol;Acc:HGNC:16096] | 34,19 | 4,65 | 2,88 | 29,54 | 0,01 |
| WDSUB1 | WD repeat, sterile alpha motif and U-box domain containing 1 [Source:HGNC Symbol;Acc:HGNC:26697] | 13,78 | 41,86 | 1,60 | 28,08 | 0,03 |
| WIPF3 | WAS/WASL interacting protein family member 3 [Source:HGNC Symbol;Acc:HGNC:22004] | 100,77 | 16,33 | 2,63 | 84,43 | 0,00 |
| WNT7A | Wnt family member 7A [Source:NCBI gene;Acc:100542958] | 17,80 | 1,66 | 3,42 | 16,14 | 0,03 |
| WWC1 | WW and C2 domain containing 1 [Source:NCBI gene;Acc:100540762] | 34,51 | 11,63 | 1,57 | 22,88 | 0,03 |
| XIRP1 | xin actin binding repeat containing 1 [Source:NCBI gene;Acc:100541459] | 1448,83 | 227,73 | 2,67 | 1221,10 | 0,00 |
| XPRI | xenotropic and polytropic retrovirus receptor 1 [Source:HGNC Symbol;Acc:HGNC:12827] | 174,08 | 65,11 | 1,42 | 108,96 | 0,03 |
| YDJC | YdjC chitooligosaccharide deacetylase homolog [Source:HGNC Symbol;Acc:HGNC:27158] | 46,67 | 10,85 | 2,10 | 35,81 | 0,01 |
| YIPF5 | Yip1 domain family member 5 [Source:HGNC Symbol;Acc:HGNC:24877] | 104,35 | 260,56 | 1,32 | 156,22 | 0,03 |
| ZBTB18 | zinc finger and BTB domain containing 18 [Source:HGNC Symbol;Acc:HGNC:13030] | 76,78 | 27,91 | 1,46 | 48,88 | 0,03 |
| ZEB1 | zinc finger E-box binding homeobox 1 [Source:HGNC Symbol;Acc:HGNC:11642] | 470,90 | 224,08 | 1,07 | 246,82 | 0,04 |

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| ZFAND2A | zinc finger AN1-type containing 2A [Source:NCBI gene;Acc:100547491] | 19,48 | 43,52 | - | 1,16 | 24,04 | 0,05 |
| ZFAND5 | zinc finger AN1-type containing 5 [Source:HGNC Symbol;Acc:HGNC:13008] | 53,34 | 19,10 | 1,48 | - | 34,24 | 0,03 |
| ZFYVE9 | zinc finger FYVE-type containing 9 [Source:NCBI gene;Acc:100545376] | 1,79 | 34,11 | 4,25 | - | 32,32 | 0,01 |
| ZHX2 | zinc fingers and homeoboxes 2 [Source:HGNC Symbol;Acc:HGNC:18513] | 46,12 | 13,73 | 1,75 | - | 32,39 | 0,02 |
| ZNF106 | zinc finger protein 106 [Source:HGNC Symbol;Acc:HGNC:12886] | 260,84 | 42,63 | 2,61 | - | 218,21 | 0,00 |
| ZNF385B | zinc finger protein 385B [Source:HGNC Symbol;Acc:HGNC:26332] | 85,30 | 21,32 | 2,00 | - | 63,99 | 0,01 |
| ZNF423 | zinc finger protein 423 [Source:HGNC Symbol;Acc:HGNC:16762] | 20,67 | 57,69 | 1,48 | - | 37,02 | 0,03 |
| ZNF462 | zinc finger protein 462 [Source:HGNC Symbol;Acc:HGNC:21684] | 103,21 | 45,85 | 1,17 | - | 57,36 | 0,04 |
| ZNF608 | zinc finger protein 608 [Source:HGNC Symbol;Acc:HGNC:29238] | 35,76 | 5,81 | 2,62 | - | 29,95 | 0,01 |