Quantitative analysis of proteins which are members of the same protein complex but cause locus heterogeneity in disease

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Supplementary Table S3

| PC name (GO id) | Genes lethal | Genes all | Orthologs of human PC proteins causing pre-birth lethality in mouse [Disease proteins in PS] |
|-----------------|--------------|-----------|------------------------------------------------------------------------------------------|
| 3M complex (GO:1990393) | 2 | 5 | [Cul7]; Fbxw8 |
| acetylcholine-gated channel complex (GO:0005892) | 1 | 17 | Stxbp5 |
| aminoacyl-tRNA synthetase multienzyme complex (GO:0017101) | 2 | 4 | Eprs; [Kars] |
| AMPA-glutamate receptor complex (GO:0032281) | 1 | 27 | Porcn |
| AP-type membrane coat adaptor complex (GO:0030119) | 1 | 9 | Ap1g1 |
| BLOC-1 complex (GO:0031083) | 2 | 15 | Bloc1s1; Bloc1s2 |
| calcium channel complex (GO:0034704) | 4 | 24 | Mcu; [Pkd1l1]; Ryr1; [Ryr2] |
| CAMP-dependent protein kinase complex (GO:0005952) | 1 | 7 | [Prkar1a] |
| chloride channel complex (GO:0034707) | 2 | 49 | [Gabrg2]; Tyh1 |
| clathrin adaptor complex (GO:0030131) | 3 | 12 | Ap1g1; Ap1m1; Gga2 |
| cohesin complex (GO:0008278) | 4 | 5 | Cdc45; [Rad21]; [Smc3]; Wapl |
| connexin complex (GO:0005922) | 2 | 20 | Gja1; [Gjb2]; [Gjb3]; Gjb5; Gjc1 |
| core TFIIH complex (GO:0000439) | 1 | 7 | [Prkar1a] |
| Cul3-RING ubiquitin ligase complex (GO:0031463) | 5 | 67 | [Cul3]; Gimm; Kctd10; Rbx1; Rnf7 |
| DNA-directed RNA polymerase I complex (GO:0005736) | 2 | 13 | Polr1b; Polr2h |
| DNA-directed RNA polymerase III complex (GO:0005666) | 1 | 18 | Polr2h |
| dolichol-phosphate-mannose synthase complex (GO:0031851) | 2 | 3 | [Dpm1]; [Dpm3] |
| dystrophin-associated glycoprotein complex (GO:0016010) | 3 | 16 | [Dagl]; [Fkrl]; Krt8 |
| ERCC4-ERCC1 complex (GO:0070522) | 3 | 4 | [Ercc1]; [Slx4]; Xrc1 |
| Fanconi anemia nuclear complex (GO:0043240) | 1 | 13 | [Fancl] |
| GABA-A receptor complex (GO:1902711) | 1 | 18 | [Gabrg2] |
| gamma DNA polymerase complex (GO:00005760) | 2 | 2 | [Dna2]; [Polg] |
| gamma-secretase complex (GO:0070765) | 4 | 6 | Aph1a; [Ncstn]; [Psen1]; Tmed10 |
| gamma-tubulin ring complex (GO:0008274) | 1 | 7 | Brca1 |
| Golgi transport complex (GO:0017119) | 1 | 12 | Tmem115 |
| HFE-transferrin receptor complex (GO:1990712) | 2 | 8 | Bmpr1a; Tfrc |
| histone acetyltransferase complex (GO:0000123) | 6 | 20 | [Cse8]; [Ep300]; [Ikkbkap]; Kat7; Kat8; Mcrs1 |
| histone methyltransferase complex (GO:0035097) | 16 | 23 | Ash2l; Cxxc1; Dpy30; Jarid2; [Kdm6a]; Kmt2a; [Kmt2b]; Kmt2c; [Kmt2d]; [Men1]; Ncoa6; Paxip1; Prmt5; Setd1a; Setd1b; Zfp335 |
| Holliday junction resolvase complex (GO:0048476) | 2 | 5 | [Rad51c]; [Slx4] |
| holo TFIIH complex (GO:0005675) | 4 | 13 | Cdk7; [Ercc2]; [Ercc3]; Mnat1 |
| HOPS complex (GO:0030897) | 1 | 14 | Vps41 |
| Iml1 complex (GO:1990130) | 1 | 4 | [Npr3] |
| integrin complex (GO:0008305) | 6 | 25 | Itga5; Itga7; Itgav; Itgb1; Itgb8; [Myh9] |
| intracellular ribonucleoprotein complex (GO:0030529) | 26 | 116 | [Actb]; Ago2; [Atxn2]; Brca1; Cpsf3; Dhx9; [Dyrk1a]; Eprs; Erg; Gapdh; Gsk3b; Gtf3c1; [Hnrnap1]; Hnnp; Hnnpu; Ifl2; Jmd6; Larp7; Lrpprc; Npm1; Nsrp1; [Nup62]; Secisbp2; Ssb; Ybx1; Zfp361 |
| junctional membrane complex (GO:0030314) | 2 | 7 | [Jph2]; Ryr1 |
| kinesin complex (GO:0005871) | 11 | 51 | Cenpe; Kif11; Kif16b; Kif18a; [Kif1a]; Kif1b; Kif20b; Kif22; Kif5b; Ndel1; [Pafah1b1] |
| L-type voltage-gated calcium channel complex (GO:1990454) | 2 | 6 | [Cacna1c]; [Cacnb2] |
| MAM1-RBP-Jkappa-ICN1 complex (GO:0002193) | 2 | 3 | [Notch1]; [Rbpj] |
| meiotic cohesin complex (GO:00030893) | 2 | 6 | Rec8; [Smc3] |
| microtubule associated complex (GO:0005875) | 8 | 32 | [Dnaaf2]; Fnta; Fntb; Kif1b; Map1b; [Pafah1b1]; Pxn; Ranbp2 |
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| PC name (GO id)                                                        | Genes lethal | Genes all | Orthologs of human PC proteins causing pre-birth lethality in mouse [Disease proteins in PS] |
|-----------------------------------------------------------------------|--------------|-----------|-------------------------------------------------------------------------------------------------|
| mitochondrial respiratory chain complex I (GO:0005747)                | 4            | 43        | Ndufa13; Ndufa5; Ndufs7; Ndufv2                                                                |
| mitochondrial respiratory chain complex II, succinate dehydrogenase complex (ubiquinone) (GO:0005749) | 4            | 4         | [SdhA]; [SdhB]; [SdhC]; [SdhD]                                                                 |
| MKS complex (GO:0036038)                                              | 6            | 12        | [B9d1]; [Cc2d2a]; [Cep290]; [Mks1]; [Tctn1]; [Tmem231]                                       |
| MLL1 complex (GO:0071339)                                             | 14           | 28        | Ash2l; Chad; Kat8; Kmt2a; Max; Mcrs1; Mga; [Prpf31]; Rnf2; Ruvbl1; Taf4; Taf6; Taf7; Tex10    |
| MLL3/4 complex (GO:0044666)                                           | 6            | 9         | Ash2l; Dpy30; [Kdm6a]; Kmt2c; [Kmt2d]; Paxip1                                                |
| muscle myosin complex (GO:0005859)                                    | 3            | 16        | [Myh6]; My1; [Ttn]                                                                            |
| myosin complex (GO:0016459)                                           | 6            | 33        | Myh10; [Myh6]; My1; My7; Myo18a; [Myo1e]                                                      |
| myosin II complex (GO:0016460)                                        | 2            | 6         | Myh10; [Myh9]                                                                                 |
| NADPH oxidase complex (GO:0043020)                                    | 1            | 12        | Ncf4                                                                                          |
| nBAF complex (GO:0071565)                                             | 5            | 14        | [Arid1a]; [Smarca4]; [Smarcb1]; Smarcc1; [Smarce1]                                             |
| npBAF complex (GO:0071564)                                            | 7            | 12        | Act16a; [Arid1a]; [Smarca4]; [Smarcb1]; Smarcc1; [Smarce1]; Ss18                              |
| nuclear origin of replication recognition complex (GO:0005664)        | 2            | 9         | Mcm2; [Orc1]                                                                                  |
| origin recognition complex (GO:0000808)                              | 1            | 6         | [Orc1]                                                                                         |
| peroxisomal importomer complex (GO:1990429)                           | 1            | 2         | [Pex14]                                                                                       |
| polyoxin complex (GO:0002133)                                         | 2            | 2         | [Pkd1]; [Pkd2]                                                                                |
| proteasome complex (GO:0000502)                                       | 7            | 58        | Psmc1; Psmc3; Psmc4; Psmd4; Psmd7; [Vcp]; [Wfs1]                                               |
| protein phosphatase type 2A complex (GO:0000159)                      | 4            | 21        | Cycs; Ppp2ca; [Ppp2r1a]; Strn                                                                  |
| pyruvate dehydrogenase complex (GO:0045254)                           | 2            | 6         | [Dld]; [Pdhb1]                                                                                |
| respiratory chain complex II (GO:0045273)                             | 2            | 2         | [SdhA]; [SdhC]                                                                                |
| RNA polymerase II transcription factor complex (GO:0009055)            | 12           | 32        | Arnt; Ascl2; Carm1; [Gata4]; Hand1; Hif1a; [Nkx2-5]; Nr5a2; [Pparg]; Rxra; [Stat1]; Trim28   |
| serine C-palmitoyltransferase complex (GO:0017059)                     | 3            | 5         | [Sptlc1]; [Sptlc2]; Sptssa                                                                    |
| Ski complex (GO:0005087)                                              | 1            | 3         | [Skiv2]                                                                                       |
| small nucleolar ribonucleoprotein complex (GO:0005732)                 | 1            | 9         | [Naf1]                                                                                         |
| spliceosomal complex (GO:0005681)                                     | 16           | 89        | Ctnnbl1; Ddx41; Gemin2; [Hnnpa1]; Hnnpc; Lsm4; Ppap1; Prpf18; Prpp3; Rheb; Sf1; Sf3a1; Sf3b1; [Snsp200]; Srsf2; Wdr13 |
| SWI/SNF complex (GO:0016514)                                          | 7            | 15        | Act16a; [Arid1a]; Rb1; [Smarca4]; [Smarcb1]; Smarcc1; [Smarce1]                               |
| synaptonemal complex (GO:0000795)                                     | 3            | 23        | Pik1; Ube2; Wapl                                                                               |
| telomerase holoenzyme complex (GO:0005697)                            | 4            | 21        | Hnnpc; Hnnpu; Smg6; [Wrap53]                                                                   |
| transcription factor TFIIID complex (GO:0005669)                       | 12           | 35        | [Errc1]; [Errc2]; [Errc3]; Gtf2b; Taf10; Taf4; Taf6; Taf7; Taf8; [Tbp]; Tceu1; [Trp53]        |
| transferase complex (GO:1990234)                                      | 2            | 5         | [Pdss2]; Ube2i                                                                                 |
| transforming growth factor beta receptor complex (GO:0070022)          | 4            | 4         | Dab2; [Eng]; [Tgfbr1]; [Tgfbr2]                                                                |
| tRNA-intron endonuclease complex (GO:0000214)                         | 1            | 4         | [Cip1]                                                                                         |
| troponin complex (GO:0005861)                                         | 1            | 8         | [Tnnt2]                                                                                       |
| TSC1-TSC2 complex (GO:0033596)                                        | 2            | 3         | [Tsc1]; [Tsc2]                                                                                |
| U4/U6 x U tri-snRNP complex (GO:0046540)                              | 3            | 20        | Prpf18; [Prpf3]; [Prpf31]                                                                     |
| ubiquitin ligase complex (GO:0000151)                                 | 23           | 104       | Arilh2; Bard1; Brap; Brc1; Fbx5; [Ikbkg]; Med1; Med11; Med12; Med21; Med24; Med31; Mlb2; Nedd4; Rnf2; Rnf20; Sugt1; Traf2; Ube2; Ube3; Ube2n; Ube4b; Ubr2; Ubr3 |
| voltage-gated calcium channel complex (GO:0005891)                     | 3            | 29        | [Cacna1c]; Cacna1s; [Cacnb2]                                                                  |
| voltage-gated potassium channel complex (GO:0008076)                  | 8            | 88        | Ctnn; [Kcn3]; [Kcnh2]; [Kcnq2]; [Kcnq3]; Kcnq5; Stx1a; [Sumo1]                               |
| voltage-gated sodium channel complex (GO:0001518)                     | 1            | 14        | [Scn5a]                                                                                       |