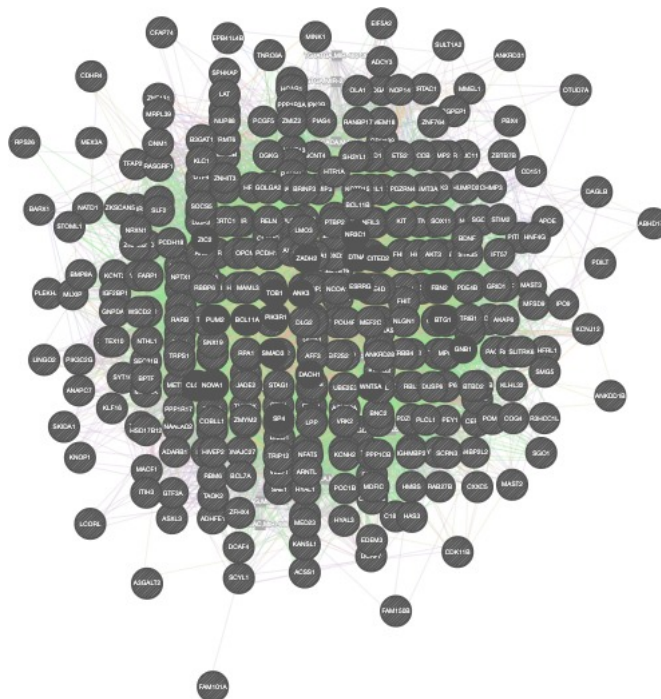


GeneMANIA report

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Application version : 3.6.0



Networks

- miRNA-target-predictions-2013
- Transcriptional-factor-targets-2013
- Co-expression
- Physical Interactions
- Genetic Interactions
- Predicted
- Co-localization
- Pathway
- Shared protein domains



Functions

N/A

Search parameters

Organism Homo sapiens (human)

Genes ENSG00000002822 , ENSG00000004534 , ENSG00000005381 , ENSG00000007923 ,
ENSG00000008118 , ENSG00000008196 , ENSG00000008197 , ENSG00000010818 ,
ENSG00000021645 , ENSG00000021826 , ENSG00000028116 , ENSG00000035115 ,
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ENSG00000144218 , ENSG00000144278 , ENSG00000144306 , ENSG00000145012 ,
ENSG00000145147 , ENSG00000145194 , ENSG00000145241 , ENSG00000145642 ,
ENSG00000145687 , ENSG00000145700 , ENSG00000145743 , ENSG00000145919 ,
ENSG00000146263 , ENSG00000147576 , ENSG00000148143 , ENSG00000149084 ,
ENSG00000149187 , ENSG00000149930 , ENSG00000150672 , ENSG00000150938 ,
ENSG00000151067 , ENSG00000151136 , ENSG00000151320 , ENSG00000151353 ,
ENSG00000151466 , ENSG00000152061 , ENSG00000152192 , ENSG00000152214 ,
ENSG00000152767 , ENSG00000153064 , ENSG00000153113 , ENSG00000153495 ,
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ENSG00000153944 , ENSG00000154027 , ENSG00000154127 , ENSG00000154415 ,
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ENSG00000157557 , ENSG00000158517 , ENSG00000159217 , ENSG00000159322 ,
ENSG00000159788 , ENSG00000160685 , ENSG00000162104 , ENSG00000162267 ,
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ENSG00000166024 , ENSG00000166436 , ENSG00000166603 , ENSG00000167110 ,
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ENSG00000169519 , ENSG00000169554 , ENSG00000169760 , ENSG00000169783 ,
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ENSG00000171246 , ENSG00000171303 , ENSG00000171385 , ENSG00000171604 ,
ENSG00000171634 , ENSG00000171681 , ENSG00000171791 , ENSG00000172260 ,
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ENSG00000173068 , ENSG00000173334 , ENSG00000173473 , ENSG00000173482 ,
ENSG00000174482 , ENSG00000174672 , ENSG00000174891 , ENSG00000174953 ,
ENSG00000175029 , ENSG00000175115 , ENSG00000175161 , ENSG00000175471 ,
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ENSG00000186792 , ENSG00000187164 , ENSG00000187391 , ENSG00000187492 ,

ENSG00000188385 , ENSG00000188641 , ENSG00000189045 , ENSG00000189056 ,
ENSG00000189184 , ENSG00000189283 , ENSG00000189292 , ENSG00000189403 ,
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ENSG00000254726 , ENSG00000256269 , ENSG00000273611 , ENSG00000274180

Network weighting Automatically selected weighting method

Networks **A**

Abu-Odeh-Aqeilan-2014 , Agrawal-Sedivy-2010 , Aichem-Groettrup-2012 , Albers-Koegl-2005 , Alexandru-Deshaies-2008 , Alizadeh-Staudt-2000 , Andresen-Flores-Morales-2014 , Arbuckle-Grant-2010 , Arroyo-Aloy-2014 , Arroyo-Aloy-2015

B

Bahr-Bowler-2013 , Bailey-Hieter-2015 , Bandyopadhyay-Ideker-2010 , Bantscheff-Drewes-2011 , Barr-Knapp-2009 , Barrios-Rodiles-Wrana-2005 , Behrends-Harper-2010 , Behzadnia-Lührmann-2007 , Bennett-Harper-2010 , Benzinger-Hermeking-2005 , Berggård-James-2006 , Bett-Hay-2013 , Bhatnagar-Attie-2014 , Bild-Nevins-2006 B , BIOGRID-SMALL-SCALE-STUDIES , BIOGRID-SMALL-SCALE-STUDIES , Blandin-Richard-2013 , Blomen-Brummelkamp-2015 , Blomen-Brummelkamp-2015 , Bogachek-Weigel-2014 , Boldrick-Relman-2002 , Bonacci-Soubeyran-2014 , Bouwmeester-Supert-Furga-2004 , Brajenovic-Drewes-2004 , Brehme-Supert-Furga-2009 , Bruderer-Hay-2011 , Burington-Shaughnessy-2008 , Butland-Hayden-2014 , Byron-Humphries-2012

C

Cai-Conaway-2007 , Camargo-Brandon-2007 , Campos-Reinberg-2015 , Cao-Chinnaiyan-2014 , Carmon-Liu-2014 , CELL_MAP , Chen-Brown-2002 , Chen-Ge-2013 , Chen-Huang-2014 , Chen-Zhang-2013 , Christianson-Kopito-2011 , Cloutier-Coulombe-2013 , Colland-Gauthier-2004 , Consolidated-Pathways-2013 , Corominas-Iakoucheva-2014 , Couzens-Gingras-2013 , Cox-Rizzino-2013 , Coyaud-Raught-2015

D

Danielsen-Nielsen-2011 , Dart-Wells-2015 , de Hoog-Mann-2004 , Diner-Cristea-2015 , Dobbin-Giordano-2005 , Drissi-Boisvert-2015 , Drug-interactions-2013 , Dyer-Sobral-2010

E

Emanuele-Elledge-2011 , Emdal-Olsen-2015 , Ewing-Figeys-2007

F

F

Fenner-Prehn-2010 , Floyd-Pagliarini-2016 , Foerster-Ritter-2013 , Fogeron-Lange-2013 , Foster-Marshall-2013 , Freibaum-Taylor-2010

G

Gabriel-Baumgrass-2016 , Galligan-Howley-2015 , Gao-Reinberg-2012 , Gautier-Hall-2009 , Giannone-Liu-2010 , Glatter-Gstaiger-2009 , Gloeckner-Ueffing-2007 , Goehler-Wanker-2004 , Golebiowski-Hay-2009 , Goudreault-Gingras-2009 , Grant-2010 , Greco-Cristea-2011 , Grossmann-Stelzl-2015 , Guarani-Harper-2014 , Gupta-Pelletier-2015

H

Hanson-Clayton-2014 , Hauri-Gstaiger-2013 , Havrylov-Redowicz-2009 , Havugimana-Emili-2012 , Hayes-Urbé-2012 , Hegele-Stelzl-2012 A , Hegele-Stelzl-2012 B , Hein-Mann-2015 , Hill-Livingston-2014 , HUMANCYC , Humphries-Humphries-2009 , Hutchins-Peters-2010 , Huttlin-Gygi-2015

I

I2D-BIND-Fly2Human , I2D-BIND-Mouse2Human , I2D-BIND-Rat2Human , I2D-BIND-Worm2Human , I2D-BIND-Yeast2Human , I2D-BioGRID-Fly2Human , I2D-BioGRID-Mouse2Human , I2D-BioGRID-Rat2Human , I2D-BioGRID-Worm2Human , I2D-BioGRID-Yeast2Human , I2D-Chen-Pawson-2009-PiwiScreen-Mouse2Human , I2D-Formstecher-Daviet-2005-Embryo-Fly2Human , I2D-Giot-Rothbert-2003-Low-Fly2Human , I2D-INNATEDB-Mouse2Human , I2D-IntAct-Fly2Human , I2D-IntAct-Mouse2Human , I2D-IntAct-Rat2Human , I2D-IntAct-Worm2Human , I2D-IntAct-Yeast2Human , I2D-Krogan-Greenblatt-2006-Core-Yeast2Human , I2D-Krogan-Greenblatt-2006-NonCore-Yeast2Human , I2D-Li-Vidal-2004-CORE-1-Worm2Human , I2D-Li-Vidal-2004-non-core-Worm2Human , I2D-Manual-Mouse2Human , I2D-Manual-Rat2Human , I2D-MGI-Mouse2Human , I2D-MINT-Fly2Human , I2D-MINT-Mouse2Human , I2D-MINT-Rat2Human , I2D-MINT-Worm2Human , I2D-MINT-Yeast2Human , I2D-Ptacek-Snyder-2005-Yeast2Human , I2D-Tarassov-PCA-Yeast2Human , I2D-Tewari-Vidal-2004-TGFb-Worm2Human , I2D-vonMering-Bork-2002-High-Yeast2Human , I2D-vonMering-Bork-2002-Low-Yeast2Human , I2D-vonMering-Bork-2002-Medium-Yeast2Human , I2D-Wang-Orkin-2006-ESmplx-Mouse2Human , I2D-Wang-Orkin-2006-ESmplxlow-Mouse2Human , I2D-Yu-Vidal-2008-GoldStd-Yeast2Human , IMID , Ingham-Pawson-2005 , Innocenti-Brown-2011 , INTERPRO , InterPro , IREF-BIND , IREF-BIOGRID , IREF-DIP , IREF-HPRD , IREF-INTACT , IREF-MATRIXDB , IREF-MPPI , IREF-PUBMED , IREF-SMALL-SCALE-STUDIES , IREF-SMALL-SCALE-STUDIES

J

Jeronimo-Coulombe-2007 , Jin-Pawson-2004 , Johnson-Kerner-Wichterle-2015 , Johnson-Shoemaker-2003 , Jones-MacBeath-2006 , Joshi-Cristea-2013 , Jäger-Krogan-2011

K

Kahle-Zoghbi-2011 , Kaltenbach-Hughes-2007 , Katsogiannou-Rocchi-2014 , Kim-Gygi-2011 , Kim-Major-2015 , Kneissl-Grummt-2003 , Koch-Hermeking-2007 , Kotlyar-Juristica-2015 , Kristensen-Foster-2012 , Kärblane-Sarmiento-2015 , Kirli-Görlich-2015

L

Lambert-Gingras-2015 , Lamoliatte-Thibault-2014 , Lau-Ronai-2012 , Lee-Songyang-2011 , Lehner-Sanderson-2004 A , Lehner-Sanderson-2004 B , Leng-Wang-2014 , Leung-Jones-2014 , Li-Chen-2015 , Li-Dorf-2011 A , Li-Dorf-2011 B , Li-Dorf-2014 , Li-Haura-2013 , Lim-Zoghbi-2006 , Lin-Smith-2010 , Lipp-Guthrie-2015 , Liu-Wang-2012 , Llères-Lamond-2010 , Loch-Strickler-2012 , Low-Heck-2014 , Lu-Zhang-2013 , Luo-Elledge-2009

M

Mak-Moffat-2010 , Mallon-McKay-2013 , Malovannaya-Qin-2010 , Markson-Sanderson-2009 , Maréchal-Zou-2014 , Matsumoto-Nakayama-2005 , McCracken-Blencowe-2005 , McFarland-Nussbaum-2008 , Meek-Piwnica-Worms-2004 , Milev-Mouland-2012 , miRNA-target-predictions-2013 , Miyamoto-Sato-Yanagawa-2010 , Murakawa-Landthaler-2015

N

Nakayama-Ohara-2002 , Nakayasu-Adkins-2013 , Napolitano-Meroni-2011 , Narayan-Bennett-2012 , Nathan-Goldberg-2013 , NCI_NATURE , Neganova-Lako-2011 , Newman-Keating-2003 , Nicholson-Hupp-2014 , Noble-Diehl-2008

O

Oliviero-Cagney-2015 , Olma-Pintard-2009 , Oláh-Ovádi-2011 , Oshikawa-Nakayama-2012 , Ouyang-Gill-2009

P

Panigrahi-Pati-2012 , Papp-Lamia-2015 , Perez-Hernandez-Yáñez-Mó-2013 , Perou-Botstein-1999 , Perou-Botstein-2000 , Persaud-Rotin-2009 , Petschnigg-Stagljar-2014 , PFAM , Phillips-Corn-2013 , Pichlmair-Supertti-Furga-2011 , Pichlmair-Supertti-Furga-2012 , Pilot-Storck-Goillot-2010 , Povlsen-Choudhary-2012

R

Ramachandran-LaBaer-2004 , Raman-Harper-2015 , Ramaswamy-Golub-2001 , Ravasi-Hayashizaki-2010 , REACTOME , Reinke-Keating-2013 , Reyniers-Taymans-2014 , Richter-Chrzanowska-Lightowlers-2010 , Rieger-Chu-2004 , Rolland-Vidal-2014 , Rosenwald-Staudt-2001 , Roth-Zlotnik-2006 , Roux-Burke-2012 , Rowbotham-Mermoud-2011 , Roy-Pardo-2014 , Roy-Parent-2013 , Rual-Vidal-2005 A , Rual-Vidal-2005 B

S

Sang-Jackson-2011 , Sato-Conaway-2004 , Schadt-Shoemaker-2004 , Scholz-Taylor-

S

2016 , Singh-Moore-2012 , Smirnov-Cheung-2009 , So-Colwill-2015 , Soler-López-Aloy-2011 , Sowa-Harper-2009 , Stehling-Lill-2012 , Stehling-Lill-2013 , Stelzl-Wanker-2005 , Stes-Gevaert-2014 , Stuart-Kim-2003 , Suter-Wanker-2013

T

Taipale-Lindquist-2012 , Taipale-Lindquist-2014 , Takahashi-Conaway-2011 , Tarallo-Weisz-2011 , Tatham-Hay-2011 , Teixeira-Gomes-2010 , Thalappilly-Duseti-2008 , Thompson-Luchansky-2014 , Tong-Moran-2014 , Toyoshima-Grandori-2012 , Transcriptional-factor-targets-2013 , Tsai-Cristea-2012

U

Udeshi-Carr-2012

V

van Wijk-Timmers-2009 , Vandamme-Angrand-2011 , Varjosalo-Gstaiger-2013 , Varjosalo-Supert-Furga-2013 , Venkatesan-Vidal-2009 , Vermeulen-Mann-2010 , Vinayagam-Wanker-2011 , Virok-Fülöp-2011 , Vizeacoumar-Moffat-2013

W

Wagner-Choudhary-2011 , Wallach-Kramer-2013 , Wan-Emili-2015 , Wang-Balch-2006 , Wang-Cheung-2015 , Wang-He-2008 , Wang-Maris-2006 , Wang-Xu-2015 , Wang-Yang-2011 , Weimann-Stelzl-2013 A , Weimann-Stelzl-2013 B , Weinmann-Meister-2009 , Wen-Wu-2014 , Whisenant-Salomon-2015 , Wilker-Yaffe-2007 , Willingham-Muchowski-2003 , Witt-Labeit-2008 , Wong-O'Bryan-2012 , Woods-Monteiro-2012 , Woodsmith-Sanderson-2012 , Wu-Garvey-2007 , Wu-Li-2007 , Wu-Ma-2012 , Wu-Stein-2010 , Wu-Stein-2010

X

Xiao-Lefkowitz-2007 , Xie-Cong-2013 , Xie-Green-2012 , Xu-Ye-2012

Y

Yang-Chen-2010 , Yatim-Benkirane-2012 , Yu-Chow-2013 , Yu-Vidal-2011

Z

Zanon-Pichler-2013 , Zhang-Shang-2006 , Zhang-Zou-2011 , Zhao-Krug-2005 , Zhao-Yang-2011 , Zhou-Conrads-2004 , Zhou-Hanemann-2016

Genes

Gene	Description	Rank
AC138647.1		N/A
LINC00998	long intergenic non-protein coding RNA 998 [Source:HGNC Symbol;Acc:HGNC:48953]	N/A
ANKDD1B	ankyrin repeat and death domain containing 1B [Source:HGNC Symbol;Acc:HGNC:32525]	N/A
FAM159B	family with sequence similarity 159 member B [Source:HGNC Symbol;Acc:HGNC:34236]	N/A
SPDYE5	speedy/RINGO cell cycle regulator family member E5 [Source:HGNC Symbol;Acc:HGNC:35464]	N/A
A3GALT2	alpha 1,3-galactosyltransferase 2 [Source:HGNC Symbol;Acc:HGNC:30005]	N/A
FAM101A	family with sequence similarity 101 member A [Source:HGNC Symbol;Acc:HGNC:27051]	N/A
CDHR4	cadherin related family member 4 [Source:HGNC Symbol;Acc:HGNC:34527]	N/A
LINGO2	leucine rich repeat and Ig domain containing 2 [Source:HGNC Symbol;Acc:HGNC:21207]	N/A
SKIDA1	SKI/DACH domain containing 1 [Source:HGNC Symbol;Acc:HGNC:32697]	N/A
ANKRD31	ankyrin repeat domain 31 [Source:HGNC Symbol;Acc:HGNC:26853]	N/A
FAM150B	family with sequence similarity 150 member B [Source:HGNC Symbol;Acc:HGNC:27683]	N/A
PDILT	protein disulfide isomerase like, testis expressed [Source:HGNC Symbol;Acc:HGNC:27338]	N/A
MEX3A	mex-3 RNA binding family member A [Source:HGNC Symbol;Acc:HGNC:33482]	N/A
SPHKAP	SPHK1 interactor, AKAP domain containing [Source:HGNC Symbol;Acc:HGNC:30619]	N/A
MMEL1	membrane metallo-endopeptidase-like 1 [Source:HGNC Symbol;Acc:HGNC:14668]	N/A
ABHD17C	abhydrolase domain containing 17C [Source:HGNC Symbol;Acc:HGNC:26925]	N/A
LCORL	ligand dependent nuclear receptor corepressor like [Source:HGNC Symbol;Acc:HGNC:30776]	N/A

Gene	Description	Rank
OTUD7A	OTU deubiquitinase 7A [Source:HGNC Symbol;Acc:HGNC:20718]	N/A
CDK11B	cyclin dependent kinase 11B [Source:HGNC Symbol;Acc:HGNC:1729]	N/A
CFAP74	cilia and flagella associated protein 74 [Source:HGNC Symbol;Acc:HGNC:29368]	N/A
DAGLB	diacylglycerol lipase beta [Source:HGNC Symbol;Acc:HGNC:28923]	N/A
EPB41L4B	erythrocyte membrane protein band 4.1 like 4B [Source:HGNC Symbol;Acc:HGNC:19818]	N/A
KCNJ12	potassium voltage-gated channel subfamily J member 12 [Source:HGNC Symbol;Acc:HGNC:6258]	N/A
ZBTB38	zinc finger and BTB domain containing 38 [Source:HGNC Symbol;Acc:HGNC:26636]	N/A
KNOP1	lysine rich nucleolar protein 1 [Source:HGNC Symbol;Acc:HGNC:34404]	N/A
BARX1	BARX homeobox 1 [Source:HGNC Symbol;Acc:HGNC:955]	N/A
ZNF131	zinc finger protein 131 [Source:HGNC Symbol;Acc:HGNC:12915]	N/A
GPR139	G protein-coupled receptor 139 [Source:HGNC Symbol;Acc:HGNC:19995]	N/A
SULT1A2	sulfotransferase family 1A member 2 [Source:HGNC Symbol;Acc:HGNC:11454]	N/A
ASXL3	additional sex combs like 3, transcriptional regulator [Source:HGNC Symbol;Acc:HGNC:29357]	N/A
ANAPC7	anaphase promoting complex subunit 7 [Source:HGNC Symbol;Acc:HGNC:17380]	N/A
KCNT2	potassium sodium-activated channel subfamily T member 2 [Source:HGNC Symbol;Acc:HGNC:18866]	N/A
PBX4	PBX homeobox 4 [Source:HGNC Symbol;Acc:HGNC:13403]	N/A
RPS26	ribosomal protein S26 [Source:HGNC Symbol;Acc:HGNC:10414]	N/A
KLF16	Kruppel like factor 16 [Source:HGNC Symbol;Acc:HGNC:16857]	N/A
PLEKHJ1	pleckstrin homology domain containing J1 [Source:HGNC Symbol;Acc:HGNC:18211]	N/A
C12orf42	chromosome 12 open reading frame 42 [Source:HGNC Symbol;Acc:HGNC:24729]	N/A
ADHFE1	alcohol dehydrogenase, iron containing 1 [Source:HGNC Symbol;Acc:HGNC:16354]	N/A
MDGA2	MAM domain containing glycosylphosphatidylinositol anchor 2 [Source:HGNC Symbol;Acc:HGNC:19835]	N/A
SCYL1	SCY1 like pseudokinase 1 [Source:HGNC Symbol;Acc:HGNC:14372]	N/A

Gene	Description	Rank
DHFRL1	dihydrofolate reductase like 1 [Source:HGNC Symbol;Acc:HGNC:27309]	N/A
NATD1	N-acetyltransferase domain containing 1 [Source:HGNC Symbol;Acc:HGNC:30770]	N/A
IQGAP3	IQ motif containing GTPase activating protein 3 [Source:HGNC Symbol;Acc:HGNC:20669]	N/A
MMS22L	MMS22 like, DNA repair protein [Source:HGNC Symbol;Acc:HGNC:21475]	N/A
BTBD11	BTB domain containing 11 [Source:HGNC Symbol;Acc:HGNC:23844]	N/A
PITPNM2	phosphatidylinositol transfer protein membrane associated 2 [Source:HGNC Symbol;Acc:HGNC:21044]	N/A
N4BP2L2	NEDD4 binding protein 2-like 2 [Source:HGNC Symbol;Acc:HGNC:26916]	N/A
RTN4RL1	reticulon 4 receptor like 1 [Source:HGNC Symbol;Acc:HGNC:21329]	N/A
IGF2BP1	insulin like growth factor 2 mRNA binding protein 1 [Source:HGNC Symbol;Acc:HGNC:28866]	N/A
GPR26	G protein-coupled receptor 26 [Source:HGNC Symbol;Acc:HGNC:4481]	N/A
MLXIP	MLX interacting protein [Source:HGNC Symbol;Acc:HGNC:17055]	N/A
BEND7	BEN domain containing 7 [Source:HGNC Symbol;Acc:HGNC:23514]	N/A
CEP120	centrosomal protein 120 [Source:HGNC Symbol;Acc:HGNC:26690]	N/A
KLHL32	kelch like family member 32 [Source:HGNC Symbol;Acc:HGNC:21221]	N/A
SGO1	shugoshin 1 [Source:HGNC Symbol;Acc:HGNC:25088]	N/A
ACSS1	acyl-CoA synthetase short-chain family member 1 [Source:HGNC Symbol;Acc:HGNC:16091]	N/A
TMEM18	transmembrane protein 18 [Source:HGNC Symbol;Acc:HGNC:25257]	N/A
TFAP2D	transcription factor AP-2 delta [Source:HGNC Symbol;Acc:HGNC:15581]	N/A
SYT16	synaptotagmin 16 [Source:HGNC Symbol;Acc:HGNC:23142]	N/A
JAKMIP3	Janus kinase and microtubule interacting protein 3 [Source:HGNC Symbol;Acc:HGNC:23523]	N/A
METTLL15	methyltransferase like 15 [Source:HGNC Symbol;Acc:HGNC:26606]	N/A
VGLL3	vestigial like family member 3 [Source:HGNC Symbol;Acc:HGNC:24327]	N/A
SCLT1	sodium channel and clathrin linker 1 [Source:HGNC Symbol;Acc:HGNC:26406]	N/A
ADCY3	adenylate cyclase 3 [Source:HGNC Symbol;Acc:HGNC:234]	N/A
DNAJC27	DnaJ heat shock protein family (Hsp40) member C27 [Source:HGNC Symbol;Acc:HGNC:30290]	N/A

Gene	Description	Rank
TECRL	trans-2,3-enoyl-CoA reductase-like [Source:HGNC Symbol;Acc:HGNC:27365]	N/A
ZFHX4	zinc finger homeobox 4 [Source:HGNC Symbol;Acc:HGNC:30939]	N/A
PARD3B	par-3 family cell polarity regulator beta [Source:HGNC Symbol;Acc:HGNC:14446]	N/A
C18orf8	chromosome 18 open reading frame 8 [Source:HGNC Symbol;Acc:HGNC:24326]	N/A
PGPEP1	pyroglutamyl-peptidase I [Source:HGNC Symbol;Acc:HGNC:13568]	N/A
TLL11	tubulin tyrosine ligase like 11 [Source:HGNC Symbol;Acc:HGNC:18113]	N/A
CADM2	cell adhesion molecule 2 [Source:HGNC Symbol;Acc:HGNC:29849]	N/A
KANSL1	KAT8 regulatory NSL complex subunit 1 [Source:HGNC Symbol;Acc:HGNC:24565]	N/A
PCGF5	polycomb group ring finger 5 [Source:HGNC Symbol;Acc:HGNC:28264]	N/A
TEX29	testis expressed 29 [Source:HGNC Symbol;Acc:HGNC:20370]	N/A
MINK1	misshapen like kinase 1 [Source:HGNC Symbol;Acc:HGNC:17565]	N/A
LRFN2	leucine rich repeat and fibronectin type III domain containing 2 [Source:HGNC Symbol;Acc:HGNC:21226]	N/A
MRPL39	mitochondrial ribosomal protein L39 [Source:HGNC Symbol;Acc:HGNC:14027]	N/A
TAOK2	TAO kinase 2 [Source:HGNC Symbol;Acc:HGNC:16835]	N/A
R3HCC1L	R3H domain and coiled-coil containing 1 like [Source:HGNC Symbol;Acc:HGNC:23512]	N/A
CRTAC1	cartilage acidic protein 1 [Source:HGNC Symbol;Acc:HGNC:14882]	N/A
MAST2	microtubule associated serine/threonine kinase 2 [Source:HGNC Symbol;Acc:HGNC:19035]	N/A
CCDC171	coiled-coil domain containing 171 [Source:HGNC Symbol;Acc:HGNC:29828]	N/A
FBXL17	F-box and leucine rich repeat protein 17 [Source:HGNC Symbol;Acc:HGNC:13615]	N/A
RPTOR	regulatory associated protein of MTOR complex 1 [Source:HGNC Symbol;Acc:HGNC:30287]	N/A
AGBL4	ATP/GTP binding protein-like 4 [Source:HGNC Symbol;Acc:HGNC:25892]	N/A
HHLA2	HERV-H LTR-associating 2 [Source:HGNC Symbol;Acc:HGNC:4905]	N/A
MACF1	microtubule-actin crosslinking factor 1 [Source:HGNC Symbol;Acc:HGNC:13664]	N/A

Gene	Description	Rank
PIK3C2G	phosphatidylinositol-4-phosphate 3-kinase catalytic subunit type 2 gamma [Source:HGNC Symbol;Acc:HGNC:8973]	N/A
LONRF2	LON peptidase N-terminal domain and ring finger 2 [Source:HGNC Symbol;Acc:HGNC:24788]	N/A
TNNI3K	TNNI3 interacting kinase [Source:HGNC Symbol;Acc:HGNC:19661]	N/A
SEC16B	SEC16 homolog B, endoplasmic reticulum export factor [Source:HGNC Symbol;Acc:HGNC:30301]	N/A
STOML1	stomatin like 1 [Source:HGNC Symbol;Acc:HGNC:14560]	N/A
MAST3	microtubule associated serine/threonine kinase 3 [Source:HGNC Symbol;Acc:HGNC:19036]	N/A
NEXN	nexilin F-actin binding protein [Source:HGNC Symbol;Acc:HGNC:29557]	N/A
IRX1	iroquois homeobox 1 [Source:HGNC Symbol;Acc:HGNC:14358]	N/A
NEGR1	neuronal growth regulator 1 [Source:HGNC Symbol;Acc:HGNC:17302]	N/A
GNPDA2	glucosamine-6-phosphate deaminase 2 [Source:HGNC Symbol;Acc:HGNC:21526]	N/A
UBASH3B	ubiquitin associated and SH3 domain containing B [Source:HGNC Symbol;Acc:HGNC:29884]	N/A
CHMP3	charged multivesicular body protein 3 [Source:HGNC Symbol;Acc:HGNC:29865]	N/A
UPK3B	uropod protein 3B [Source:HGNC Symbol;Acc:HGNC:21444]	N/A
CSMD2	CUB and Sushi multiple domains 2 [Source:HGNC Symbol;Acc:HGNC:19290]	N/A
GTF3A	general transcription factor IIIA [Source:HGNC Symbol;Acc:HGNC:4662]	N/A
HTR1F	5-hydroxytryptamine receptor 1F [Source:HGNC Symbol;Acc:HGNC:5292]	N/A
SDCCAG8	serologically defined colon cancer antigen 8 [Source:HGNC Symbol;Acc:HGNC:10671]	N/A
TNRC6A	trinucleotide repeat containing 6A [Source:HGNC Symbol;Acc:HGNC:11969]	N/A
POC1B	POC1 centriolar protein B [Source:HGNC Symbol;Acc:HGNC:30836]	N/A
ANAPC4	anaphase promoting complex subunit 4 [Source:HGNC Symbol;Acc:HGNC:19990]	N/A
ZBTB7B	zinc finger and BTB domain containing 7B [Source:HGNC Symbol;Acc:HGNC:18668]	N/A
DCAF4	DDB1 and CUL4 associated factor 4 [Source:HGNC Symbol;Acc:HGNC:19990]	N/A

Gene	Description	Rank
	20229]	
DCAF7	DDB1 and CUL4 associated factor 7 [Source:HGNC Symbol;Acc:HGNC:30915]	N/A
LINGO1	leucine rich repeat and Ig domain containing 1 [Source:HGNC Symbol;Acc:HGNC:21205]	N/A
SHTN1	shootin 1 [Source:HGNC Symbol;Acc:HGNC:29319]	N/A
HCAR1	hydroxycarboxylic acid receptor 1 [Source:HGNC Symbol;Acc:HGNC:4532]	N/A
GCNT4	glucosaminyl (N-acetyl) transferase 4, core 2 [Source:HGNC Symbol;Acc:HGNC:17973]	N/A
FTO	fat mass and obesity associated [Source:HGNC Symbol;Acc:HGNC:24678]	N/A
ZNF764	zinc finger protein 764 [Source:HGNC Symbol;Acc:HGNC:28200]	N/A
MON1A	MON1 homolog A, secretory trafficking associated [Source:HGNC Symbol;Acc:HGNC:28207]	N/A
PACS1	phosphofurin acidic cluster sorting protein 1 [Source:HGNC Symbol;Acc:HGNC:30032]	N/A
HRH4	histamine receptor H4 [Source:HGNC Symbol;Acc:HGNC:17383]	N/A
BMP8A	bone morphogenetic protein 8a [Source:HGNC Symbol;Acc:HGNC:21650]	N/A
TSHZ2	teashirt zinc finger homeobox 2 [Source:HGNC Symbol;Acc:HGNC:13010]	N/A
PPP1R3A	protein phosphatase 1 regulatory subunit 3A [Source:HGNC Symbol;Acc:HGNC:9291]	N/A
ANKS1B	ankyrin repeat and sterile alpha motif domain containing 1B [Source:HGNC Symbol;Acc:HGNC:24600]	N/A
ANTXR2	anthrax toxin receptor 2 [Source:HGNC Symbol;Acc:HGNC:21732]	N/A
GRID1	glutamate ionotropic receptor delta type subunit 1 [Source:HGNC Symbol;Acc:HGNC:4575]	N/A
TRIM66	tripartite motif containing 66 [Source:HGNC Symbol;Acc:HGNC:29005]	N/A
RAB27B	RAB27B, member RAS oncogene family [Source:HGNC Symbol;Acc:HGNC:9767]	N/A
BOD1	biorientation of chromosomes in cell division 1 [Source:HGNC Symbol;Acc:HGNC:25114]	N/A
DNAJC11	DnaJ heat shock protein family (Hsp40) member C11 [Source:HGNC Symbol;Acc:HGNC:25570]	N/A
YEATS2	YEATS domain containing 2 [Source:HGNC Symbol;Acc:HGNC:25489]	N/A

Gene	Description	Rank
MCTP1	multiple C2 and transmembrane domain containing 1 [Source:HGNC Symbol;Acc:HGNC:26183]	N/A
PIAS4	protein inhibitor of activated STAT 4 [Source:HGNC Symbol;Acc:HGNC:17002]	N/A
RANBP17	RAN binding protein 17 [Source:HGNC Symbol;Acc:HGNC:14428]	N/A
MSRA	methionine sulfoxide reductase A [Source:HGNC Symbol;Acc:HGNC:7377]	N/A
MC4R	melanocortin 4 receptor [Source:HGNC Symbol;Acc:HGNC:6932]	N/A
RSRC1	arginine and serine rich coiled-coil 1 [Source:HGNC Symbol;Acc:HGNC:24152]	N/A
CHFR	checkpoint with forkhead and ring finger domains, E3 ubiquitin protein ligase [Source:HGNC Symbol;Acc:HGNC:20455]	N/A
MRPS9	mitochondrial ribosomal protein S9 [Source:HGNC Symbol;Acc:HGNC:14501]	N/A
ZNF462	zinc finger protein 462 [Source:HGNC Symbol;Acc:HGNC:21684]	N/A
RASGRF1	Ras protein specific guanine nucleotide releasing factor 1 [Source:HGNC Symbol;Acc:HGNC:9875]	N/A
TEX10	testis expressed 10 [Source:HGNC Symbol;Acc:HGNC:25988]	N/A
MFSD9	major facilitator superfamily domain containing 9 [Source:HGNC Symbol;Acc:HGNC:28158]	N/A
HTR1A	5-hydroxytryptamine receptor 1A [Source:HGNC Symbol;Acc:HGNC:5286]	N/A
EDEM3	ER degradation enhancing alpha-mannosidase like protein 3 [Source:HGNC Symbol;Acc:HGNC:16787]	N/A
RAD54B	RAD54 homolog B (<i>S. cerevisiae</i>) [Source:HGNC Symbol;Acc:HGNC:17228]	N/A
DNM1	dynamamin 1 [Source:HGNC Symbol;Acc:HGNC:2972]	N/A
THUMP2	THUMP domain containing 2 [Source:HGNC Symbol;Acc:HGNC:14890]	N/A
RBM19	RNA binding motif protein 19 [Source:HGNC Symbol;Acc:HGNC:29098]	N/A
NAALAD2	N-acetylated alpha-linked acidic dipeptidase 2 [Source:HGNC Symbol;Acc:HGNC:14526]	N/A
CIPC	CLOCK-interacting pacemaker [Source:HGNC Symbol;Acc:HGNC:20365]	N/A
HYAL3	hyaluronoglucosaminidase 3 [Source:HGNC Symbol;Acc:HGNC:5322]	N/A
HAS3	hyaluronan synthase 3 [Source:HGNC Symbol;Acc:HGNC:4820]	N/A
RGS12	regulator of G-protein signaling 12 [Source:HGNC Symbol;Acc:HGNC:	N/A

Gene	Description	Rank
	9994]	
IFT57	intraflagellar transport 57 [Source:HGNC Symbol;Acc:HGNC:17367]	N/A
NDE1	nudE neurodevelopment protein 1 [Source:HGNC Symbol;Acc:HGNC:17619]	N/A
MCTP2	multiple C2 domains, transmembrane 2 [Source:HGNC Symbol;Acc:HGNC:25636]	N/A
PKHD1	polycystic kidney and hepatic disease 1 (autosomal recessive) [Source:HGNC Symbol;Acc:HGNC:9016]	N/A
HS6ST3	heparan sulfate 6-O-sulfotransferase 3 [Source:HGNC Symbol;Acc:HGNC:19134]	N/A
METTL4	methyltransferase like 4 [Source:HGNC Symbol;Acc:HGNC:24726]	N/A
KCNB2	potassium voltage-gated channel subfamily B member 2 [Source:HGNC Symbol;Acc:HGNC:6232]	N/A
SAE1	SUMO1 activating enzyme subunit 1 [Source:HGNC Symbol;Acc:HGNC:30660]	N/A
WSCD2	WSC domain containing 2 [Source:HGNC Symbol;Acc:HGNC:29117]	N/A
SEC31B	SEC31 homolog B, COPII coat complex component [Source:HGNC Symbol;Acc:HGNC:23197]	N/A
IPO9	importin 9 [Source:HGNC Symbol;Acc:HGNC:19425]	N/A
OLA1	Obg-like ATPase 1 [Source:HGNC Symbol;Acc:HGNC:28833]	N/A
ZKSCAN5	zinc finger with KRAB and SCAN domains 5 [Source:HGNC Symbol;Acc:HGNC:12867]	N/A
DOPEY1	dopey family member 1 [Source:HGNC Symbol;Acc:HGNC:21194]	N/A
GRP	gastrin releasing peptide [Source:HGNC Symbol;Acc:HGNC:4605]	N/A
CRTC1	CREB regulated transcription coactivator 1 [Source:HGNC Symbol;Acc:HGNC:16062]	N/A
ARPP21	cAMP regulated phosphoprotein 21 [Source:HGNC Symbol;Acc:HGNC:16968]	N/A
ADCY9	adenylate cyclase 9 [Source:HGNC Symbol;Acc:HGNC:240]	N/A
GALNT13	polypeptide N-acetylgalactosaminyltransferase 13 [Source:HGNC Symbol;Acc:HGNC:23242]	N/A
SLF2	SMC5-SMC6 complex localization factor 2 [Source:HGNC Symbol;Acc:HGNC:17814]	N/A
ECE2	endothelin converting enzyme 2 [Source:HGNC Symbol;Acc:HGNC:13275]	N/A
NCF1	neutrophil cytosolic factor 1 [Source:HGNC Symbol;Acc:HGNC:7660]	N/A

Gene	Description	Rank
CADM1	cell adhesion molecule 1 [Source:HGNC Symbol;Acc:HGNC:5951]	N/A
SMG6	SMG6, nonsense mediated mRNA decay factor [Source:HGNC Symbol;Acc:HGNC:17809]	N/A
UNC5D	unc-5 netrin receptor D [Source:HGNC Symbol;Acc:HGNC:18634]	N/A
CEP192	centrosomal protein 192 [Source:HGNC Symbol;Acc:HGNC:25515]	N/A
ZMIZ2	zinc finger MIZ-type containing 2 [Source:HGNC Symbol;Acc:HGNC:22229]	N/A
SMG5	SMG5, nonsense mediated mRNA decay factor [Source:HGNC Symbol;Acc:HGNC:24644]	N/A
ADARB1	adenosine deaminase, RNA specific B1 [Source:HGNC Symbol;Acc:HGNC:226]	N/A
MFAP3	microfibrillar associated protein 3 [Source:HGNC Symbol;Acc:HGNC:7034]	N/A
IGHMBP2	immunoglobulin mu binding protein 2 [Source:HGNC Symbol;Acc:HGNC:5542]	N/A
KCNK3	potassium two pore domain channel subfamily K member 3 [Source:HGNC Symbol;Acc:HGNC:6278]	N/A
SNX19	sorting nexin 19 [Source:HGNC Symbol;Acc:HGNC:21532]	N/A
DIDO1	death inducer-obliterator 1 [Source:HGNC Symbol;Acc:HGNC:2680]	N/A
AKAP6	A-kinase anchoring protein 6 [Source:HGNC Symbol;Acc:HGNC:376]	N/A
B3GALNT1	beta-1,3-N-acetylgalactosaminyltransferase 1 (globoside blood group) [Source:HGNC Symbol;Acc:HGNC:918]	N/A
PRMT6	protein arginine methyltransferase 6 [Source:HGNC Symbol;Acc:HGNC:18241]	N/A
NOP14	NOP14 nucleolar protein [Source:HGNC Symbol;Acc:HGNC:16821]	N/A
EFEMP2	EGF containing fibulin like extracellular matrix protein 2 [Source:HGNC Symbol;Acc:HGNC:3219]	N/A
KCNH2	potassium voltage-gated channel subfamily H member 2 [Source:HGNC Symbol;Acc:HGNC:6251]	N/A
LAT	linker for activation of T-cells [Source:HGNC Symbol;Acc:HGNC:18874]	N/A
LMX1B	LIM homeobox transcription factor 1 beta [Source:HGNC Symbol;Acc:HGNC:6654]	N/A
CACNA1C	calcium voltage-gated channel subunit alpha1 C [Source:HGNC Symbol;Acc:HGNC:1390]	N/A
NUP88	nucleoporin 88 [Source:HGNC Symbol;Acc:HGNC:8067]	N/A
UTP4	UTP4, small subunit processome component [Source:HGNC Symbol;	N/A

Gene	Description	Rank
	Acc:HGNC:1983]	
OLFM4	olfactomedin 4 [Source:HGNC Symbol;Acc:HGNC:17190]	N/A
B3GAT1	beta-1,3-glucuronyltransferase 1 [Source:HGNC Symbol;Acc:HGNC:921]	N/A
ADPGK	ADP dependent glucokinase [Source:HGNC Symbol;Acc:HGNC:25250]	N/A
BTBD2	BTB domain containing 2 [Source:HGNC Symbol;Acc:HGNC:15504]	N/A
ETAA1	Ewing tumor associated antigen 1 [Source:HGNC Symbol;Acc:HGNC:24648]	N/A
FANCL	Fanconi anemia complementation group L [Source:HGNC Symbol;Acc:HGNC:20748]	N/A
HYAL1	hyaluronoglucosaminidase 1 [Source:HGNC Symbol;Acc:HGNC:5320]	N/A
PDZK1IP1	PDZK1 interacting protein 1 [Source:HGNC Symbol;Acc:HGNC:16887]	N/A
ENTPD6	ectonucleoside triphosphate diphosphohydrolase 6 (putative) [Source:HGNC Symbol;Acc:HGNC:3368]	N/A
GATA2	GATA binding protein 2 [Source:HGNC Symbol;Acc:HGNC:4171]	N/A
PCCB	propionyl-CoA carboxylase beta subunit [Source:HGNC Symbol;Acc:HGNC:8654]	N/A
GADD45G	growth arrest and DNA damage inducible gamma [Source:HGNC Symbol;Acc:HGNC:4097]	N/A
BANK1	B-cell scaffold protein with ankyrin repeats 1 [Source:HGNC Symbol;Acc:HGNC:18233]	N/A
CDH9	cadherin 9 [Source:HGNC Symbol;Acc:HGNC:1768]	N/A
PML	promyelocytic leukemia [Source:HGNC Symbol;Acc:HGNC:9113]	N/A
KLC1	kinesin light chain 1 [Source:HGNC Symbol;Acc:HGNC:6387]	N/A
BRSK2	BR serine/threonine kinase 2 [Source:HGNC Symbol;Acc:HGNC:11405]	N/A
CELF1	CUGBP, Elav-like family member 1 [Source:HGNC Symbol;Acc:HGNC:2549]	N/A
POMC	proopiomelanocortin [Source:HGNC Symbol;Acc:HGNC:9201]	N/A
HSD17B12	hydroxysteroid 17-beta dehydrogenase 12 [Source:HGNC Symbol;Acc:HGNC:18646]	N/A
MAD1L1	MAD1 mitotic arrest deficient like 1 [Source:HGNC Symbol;Acc:HGNC:6762]	N/A
CCNE1	cyclin E1 [Source:HGNC Symbol;Acc:HGNC:1589]	N/A
ITIH3	inter-alpha-trypsin inhibitor heavy chain 3 [Source:HGNC Symbol;Acc:HGNC:6168]	N/A
DZIP3	DAZ interacting zinc finger protein 3 [Source:HGNC Symbol;Acc:HGNC:30938]	N/A

Gene	Description	Rank
ZBTB16	zinc finger and BTB domain containing 16 [Source:HGNC Symbol;Acc:HGNC:12930]	N/A
DGKG	diacylglycerol kinase gamma [Source:HGNC Symbol;Acc:HGNC:2853]	N/A
PSIP1	PC4 and SFRS1 interacting protein 1 [Source:HGNC Symbol;Acc:HGNC:9527]	N/A
SMARCC1	SWI/SNF related, matrix associated, actin dependent regulator of chromatin subfamily c member 1 [Source:HGNC Symbol;Acc:HGNC:11104]	N/A
PPP1R17	protein phosphatase 1 regulatory subunit 17 [Source:HGNC Symbol;Acc:HGNC:16973]	N/A
ATF7IP	activating transcription factor 7 interacting protein [Source:HGNC Symbol;Acc:HGNC:20092]	N/A
NTHL1	nth-like DNA glycosylase 1 [Source:HGNC Symbol;Acc:HGNC:8028]	N/A
ZMYM2	zinc finger MYM-type containing 2 [Source:HGNC Symbol;Acc:HGNC:12989]	N/A
STK35	serine/threonine kinase 35 [Source:HGNC Symbol;Acc:HGNC:16254]	N/A
SGCZ	sarcoglycan zeta [Source:HGNC Symbol;Acc:HGNC:14075]	N/A
PARK2	parkin RBR E3 ubiquitin protein ligase [Source:HGNC Symbol;Acc:HGNC:8607]	N/A
CPNE4	copine 4 [Source:HGNC Symbol;Acc:HGNC:2317]	N/A
SCN2A	sodium voltage-gated channel alpha subunit 2 [Source:HGNC Symbol;Acc:HGNC:10588]	N/A
SH3YL1	SH3 and SYLF domain containing 1 [Source:HGNC Symbol;Acc:HGNC:29546]	N/A
SLITRK6	SLIT and NTRK like family member 6 [Source:HGNC Symbol;Acc:HGNC:23503]	N/A
FOXO3	forkhead box O3 [Source:HGNC Symbol;Acc:HGNC:3821]	N/A
VEZF1	vascular endothelial zinc finger 1 [Source:HGNC Symbol;Acc:HGNC:12949]	N/A
COG4	component of oligomeric golgi complex 4 [Source:HGNC Symbol;Acc:HGNC:18620]	N/A
BPTF	bromodomain PHD finger transcription factor [Source:HGNC Symbol;Acc:HGNC:3581]	N/A
SLIT2	slit guidance ligand 2 [Source:HGNC Symbol;Acc:HGNC:11086]	N/A
FUBP1	far upstream element binding protein 1 [Source:HGNC Symbol;Acc:HGNC:4004]	N/A
FOXP1	forkhead box G1 [Source:HGNC Symbol;Acc:HGNC:3811]	N/A

Gene	Description	Rank
BLK	BLK proto-oncogene, Src family tyrosine kinase [Source:HGNC Symbol; Acc:HGNC:1057]	N/A
BMP2	bone morphogenetic protein 2 [Source:HGNC Symbol;Acc:HGNC:1069]	N/A
MDFIC	MyoD family inhibitor domain containing [Source:HGNC Symbol;Acc:HGNC:28870]	N/A
EIF5A2	eukaryotic translation initiation factor 5A2 [Source:HGNC Symbol;Acc:HGNC:3301]	N/A
GOLGA2	golgin A2 [Source:HGNC Symbol;Acc:HGNC:4425]	N/A
DNMT3A	DNA (cytosine-5-)-methyltransferase 3 alpha [Source:HGNC Symbol; Acc:HGNC:2978]	N/A
FHIT	fragile histidine triad [Source:HGNC Symbol;Acc:HGNC:3701]	N/A
VIPR1	vasoactive intestinal peptide receptor 1 [Source:HGNC Symbol;Acc:HGNC:12694]	N/A
CENPC	centromere protein C [Source:HGNC Symbol;Acc:HGNC:1854]	N/A
DHX36	DEAH-box helicase 36 [Source:HGNC Symbol;Acc:HGNC:14410]	N/A
MPPED2	metallophosphoesterase domain containing 2 [Source:HGNC Symbol; Acc:HGNC:1180]	N/A
CAMK1G	calcium/calmodulin dependent protein kinase IG [Source:HGNC Symbol; Acc:HGNC:14585]	N/A
SCRN3	secernin 3 [Source:HGNC Symbol;Acc:HGNC:30382]	N/A
ZNF536	zinc finger protein 536 [Source:HGNC Symbol;Acc:HGNC:29025]	N/A
RABGAP1L	RAB GTPase activating protein 1-like [Source:HGNC Symbol;Acc:HGNC:24663]	N/A
FHL2	four and a half LIM domains 2 [Source:HGNC Symbol;Acc:HGNC:3703]	N/A
KCND3	potassium voltage-gated channel subfamily D member 3 [Source:HGNC Symbol;Acc:HGNC:6239]	N/A
CD151	CD151 molecule (Raph blood group) [Source:HGNC Symbol;Acc:HGNC:1630]	N/A
MAP2K5	mitogen-activated protein kinase kinase 5 [Source:HGNC Symbol;Acc:HGNC:6845]	N/A
TRIP12	thyroid hormone receptor interactor 12 [Source:HGNC Symbol;Acc:HGNC:12306]	N/A
PURG	purine rich element binding protein G [Source:HGNC Symbol;Acc:HGNC:17930]	N/A
MPO	myeloperoxidase [Source:HGNC Symbol;Acc:HGNC:7218]	N/A
NFAT5	nuclear factor of activated T-cells 5, tonicity-responsive [Source:HGNC	N/A

Gene	Description	Rank
	Symbol;Acc:HGNC:7774]	
RBM6	RNA binding motif protein 6 [Source:HGNC Symbol;Acc:HGNC:9903]	N/A
AK5	adenylate kinase 5 [Source:HGNC Symbol;Acc:HGNC:365]	N/A
PMAIP1	phorbol-12-myristate-13-acetate-induced protein 1 [Source:HGNC Symbol;Acc:HGNC:9108]	N/A
FARP1	FERM, ARH/RhoGEF and pleckstrin domain protein 1 [Source:HGNC Symbol;Acc:HGNC:3591]	N/A
TIPARP	TCDD inducible poly(ADP-ribose) polymerase [Source:HGNC Symbol;Acc:HGNC:23696]	N/A
APOE	apolipoprotein E [Source:HGNC Symbol;Acc:HGNC:613]	N/A
COBLL1	cordon-bleu WH2 repeat protein like 1 [Source:HGNC Symbol;Acc:HGNC:23571]	N/A
MED23	mediator complex subunit 23 [Source:HGNC Symbol;Acc:HGNC:2372]	N/A
PTPRN2	protein tyrosine phosphatase, receptor type N2 [Source:HGNC Symbol;Acc:HGNC:9677]	N/A
PATJ	PATJ, crumbs cell polarity complex component [Source:HGNC Symbol;Acc:HGNC:28881]	N/A
UNC79	unc-79 homolog (C. elegans) [Source:HGNC Symbol;Acc:HGNC:19966]	N/A
DLK1	delta like non-canonical Notch ligand 1 [Source:HGNC Symbol;Acc:HGNC:2907]	N/A
ZNHIT3	zinc finger HIT-type containing 3 [Source:HGNC Symbol;Acc:HGNC:12309]	N/A
ZFHX3	zinc finger homeobox 3 [Source:HGNC Symbol;Acc:HGNC:777]	N/A
ARNTL	aryl hydrocarbon receptor nuclear translocator like [Source:HGNC Symbol;Acc:HGNC:701]	N/A
SLC39A8	solute carrier family 39 member 8 [Source:HGNC Symbol;Acc:HGNC:20862]	N/A
PIK3C3	phosphatidylinositol 3-kinase catalytic subunit type 3 [Source:HGNC Symbol;Acc:HGNC:8974]	N/A
WNK1	WNK lysine deficient protein kinase 1 [Source:HGNC Symbol;Acc:HGNC:14540]	N/A
POU6F2	POU class 6 homeobox 2 [Source:HGNC Symbol;Acc:HGNC:21694]	N/A
ZEB2	zinc finger E-box binding homeobox 2 [Source:HGNC Symbol;Acc:HGNC:14881]	N/A
SCG3	secretogranin III [Source:HGNC Symbol;Acc:HGNC:13707]	N/A
STIM2	stromal interaction molecule 2 [Source:HGNC Symbol;Acc:HGNC:19205]	N/A

Gene	Description	Rank
BRINP3	BMP/retinoic acid inducible neural specific 3 [Source:HGNC Symbol; Acc:HGNC:22393]	N/A
SKAP1	src kinase associated phosphoprotein 1 [Source:HGNC Symbol;Acc: HGNC:15605]	N/A
OPCML	opioid binding protein/cell adhesion molecule-like [Source:HGNC Symbol;Acc:HGNC:8143]	N/A
STXBP6	syntaxin binding protein 6 [Source:HGNC Symbol;Acc:HGNC:19666]	N/A
GBE1	glucan (1,4-alpha-), branching enzyme 1 [Source:HGNC Symbol;Acc: HGNC:4180]	N/A
HNF4G	hepatocyte nuclear factor 4 gamma [Source:HGNC Symbol;Acc:HGNC: 5026]	N/A
PTPRD	protein tyrosine phosphatase, receptor type D [Source:HGNC Symbol; Acc:HGNC:9668]	N/A
ACVR2A	activin A receptor type 2A [Source:HGNC Symbol;Acc:HGNC:173]	N/A
KCTD15	potassium channel tetramerization domain containing 15 [Source:HGNC Symbol;Acc:HGNC:23297]	N/A
ADD1	adducin 1 [Source:HGNC Symbol;Acc:HGNC:243]	N/A
HHIP	hedgehog interacting protein [Source:HGNC Symbol;Acc:HGNC:14866]	N/A
PTBP2	polypyrimidine tract binding protein 2 [Source:HGNC Symbol;Acc: HGNC:17662]	N/A
DPYD	dihydropyrimidine dehydrogenase [Source:HGNC Symbol;Acc:HGNC: 3012]	N/A
HIVEP2	human immunodeficiency virus type I enhancer binding protein 2 [Source:HGNC Symbol;Acc:HGNC:4921]	N/A
VRK2	vaccinia related kinase 2 [Source:HGNC Symbol;Acc:HGNC:12719]	N/A
GRIA1	glutamate ionotropic receptor AMPA type subunit 1 [Source:HGNC Symbol;Acc:HGNC:4571]	N/A
NPTX1	neuronal pentraxin 1 [Source:HGNC Symbol;Acc:HGNC:7952]	N/A
CXXC5	CXXC finger protein 5 [Source:HGNC Symbol;Acc:HGNC:26943]	N/A
PLCL1	phospholipase C like 1 [Source:HGNC Symbol;Acc:HGNC:9063]	N/A
TRAF3	TNF receptor associated factor 3 [Source:HGNC Symbol;Acc:HGNC: 12033]	N/A
MAN1A1	mannosidase alpha class 1A member 1 [Source:HGNC Symbol;Acc: HGNC:6821]	N/A
SOCS5	suppressor of cytokine signaling 5 [Source:HGNC Symbol;Acc:HGNC: 16852]	N/A

Gene	Description	Rank
CADPS	calcium dependent secretion activator [Source:HGNC Symbol;Acc:HGNC:1426]	N/A
CPS1	carbamoyl-phosphate synthase 1 [Source:HGNC Symbol;Acc:HGNC:2323]	N/A
MSI2	musashi RNA binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18585]	N/A
PCDH17	protocadherin 17 [Source:HGNC Symbol;Acc:HGNC:14267]	N/A
RTN4	reticulon 4 [Source:HGNC Symbol;Acc:HGNC:14085]	N/A
ETS2	ETS proto-oncogene 2, transcription factor [Source:HGNC Symbol;Acc:HGNC:3489]	N/A
CAST	calpastatin [Source:HGNC Symbol;Acc:HGNC:1515]	N/A
PDZRN4	PDZ domain containing ring finger 4 [Source:HGNC Symbol;Acc:HGNC:30552]	N/A
HMBS	hydroxymethylbilane synthase [Source:HGNC Symbol;Acc:HGNC:4982]	N/A
RBL2	RB transcriptional corepressor like 2 [Source:HGNC Symbol;Acc:HGNC:9894]	N/A
CTBP2	C-terminal binding protein 2 [Source:HGNC Symbol;Acc:HGNC:2495]	N/A
EIF2S2	eukaryotic translation initiation factor 2 subunit beta [Source:HGNC Symbol;Acc:HGNC:3266]	N/A
CRIM1	cysteine rich transmembrane BMP regulator 1 (chordin-like) [Source:HGNC Symbol;Acc:HGNC:2359]	N/A
TFAP2B	transcription factor AP-2 beta [Source:HGNC Symbol;Acc:HGNC:11743]	N/A
PCDH18	protocadherin 18 [Source:HGNC Symbol;Acc:HGNC:14268]	N/A
AFF3	AF4/FMR2 family member 3 [Source:HGNC Symbol;Acc:HGNC:6473]	N/A
UBE2E3	ubiquitin conjugating enzyme E2 E3 [Source:HGNC Symbol;Acc:HGNC:12479]	N/A
NRXN1	neurexin 1 [Source:HGNC Symbol;Acc:HGNC:8008]	N/A
AKT3	AKT serine/threonine kinase 3 [Source:HGNC Symbol;Acc:HGNC:393]	N/A
AXIN1	axin 1 [Source:HGNC Symbol;Acc:HGNC:903]	N/A
NFIL3	nuclear factor, interleukin 3 regulated [Source:HGNC Symbol;Acc:HGNC:7787]	N/A
BCL7A	B-cell CLL/lymphoma 7A [Source:HGNC Symbol;Acc:HGNC:1004]	N/A
BDNF	brain derived neurotrophic factor [Source:HGNC Symbol;Acc:HGNC:1033]	N/A
PDE4B	phosphodiesterase 4B [Source:HGNC Symbol;Acc:HGNC:8781]	N/A
CCND1	cyclin D1 [Source:HGNC Symbol;Acc:HGNC:1582]	N/A

Gene	Description	Rank
NLGN1	neuroligin 1 [Source:HGNC Symbol;Acc:HGNC:14291]	N/A
SOX11	SRY-box 11 [Source:HGNC Symbol;Acc:HGNC:11191]	N/A
SSBP2	single stranded DNA binding protein 2 [Source:HGNC Symbol;Acc:HGNC:15831]	N/A
RIT2	Ras like without CAAX 2 [Source:HGNC Symbol;Acc:HGNC:10017]	N/A
STAG1	stromal antigen 1 [Source:HGNC Symbol;Acc:HGNC:11354]	N/A
HMGB1	high mobility group box 1 [Source:HGNC Symbol;Acc:HGNC:4983]	N/A
MAGI2	membrane associated guanylate kinase, WW and PDZ domain containing 2 [Source:HGNC Symbol;Acc:HGNC:18957]	N/A
RELN	reelin [Source:HGNC Symbol;Acc:HGNC:9957]	N/A
NRP1	neuropilin 1 [Source:HGNC Symbol;Acc:HGNC:8004]	N/A
DUSP6	dual specificity phosphatase 6 [Source:HGNC Symbol;Acc:HGNC:3072]	N/A
BCL2	B-cell CLL/lymphoma 2 [Source:HGNC Symbol;Acc:HGNC:990]	N/A
LPP	LIM domain containing preferred translocation partner in lipoma [Source:HGNC Symbol;Acc:HGNC:6679]	N/A
NEBL	nebullette [Source:HGNC Symbol;Acc:HGNC:16932]	N/A
TRIB1	tribbles pseudokinase 1 [Source:HGNC Symbol;Acc:HGNC:16891]	N/A
BNC2	basonuclin 2 [Source:HGNC Symbol;Acc:HGNC:30988]	N/A
SEL1L	SEL1L ERAD E3 ligase adaptor subunit [Source:HGNC Symbol;Acc:HGNC:10717]	N/A
PTPRM	protein tyrosine phosphatase, receptor type M [Source:HGNC Symbol;Acc:HGNC:9675]	N/A
ERBB4	erb-b2 receptor tyrosine kinase 4 [Source:HGNC Symbol;Acc:HGNC:3432]	N/A
RPS6KA5	ribosomal protein S6 kinase A5 [Source:HGNC Symbol;Acc:HGNC:10434]	N/A
RBBP6	RB binding protein 6, ubiquitin ligase [Source:HGNC Symbol;Acc:HGNC:9889]	N/A
LGR4	leucine rich repeat containing G protein-coupled receptor 4 [Source:HGNC Symbol;Acc:HGNC:13299]	N/A
RPA1	replication protein A1 [Source:HGNC Symbol;Acc:HGNC:10289]	N/A
RARB	retinoic acid receptor beta [Source:HGNC Symbol;Acc:HGNC:9865]	N/A
KIT	KIT proto-oncogene receptor tyrosine kinase [Source:HGNC Symbol;Acc:HGNC:6342]	N/A
TRPS1	transcriptional repressor GATA binding 1 [Source:HGNC Symbol;Acc:HGNC:12340]	N/A

Gene	Description	Rank
CDH13	cadherin 13 [Source:HGNC Symbol;Acc:HGNC:1753]	N/A
NCOA1	nuclear receptor coactivator 1 [Source:HGNC Symbol;Acc:HGNC:7668]	N/A
POU4F1	POU class 4 homeobox 1 [Source:HGNC Symbol;Acc:HGNC:9218]	N/A
NRXN3	neurexin 3 [Source:HGNC Symbol;Acc:HGNC:8010]	N/A
ANKRD28	ankyrin repeat domain 28 [Source:HGNC Symbol;Acc:HGNC:29024]	N/A
BCL11B	B-cell CLL/lymphoma 11B [Source:HGNC Symbol;Acc:HGNC:13222]	N/A
JADE2	jade family PHD finger 2 [Source:HGNC Symbol;Acc:HGNC:22984]	N/A
LMO3	LIM domain only 3 [Source:HGNC Symbol;Acc:HGNC:6643]	N/A
PPP1CB	protein phosphatase 1 catalytic subunit beta [Source:HGNC Symbol;Acc:HGNC:9282]	N/A
MAML3	mastermind like transcriptional coactivator 3 [Source:HGNC Symbol;Acc:HGNC:16272]	N/A
DLG2	discs large MAGUK scaffold protein 2 [Source:HGNC Symbol;Acc:HGNC:2901]	N/A
PDE4D	phosphodiesterase 4D [Source:HGNC Symbol;Acc:HGNC:8783]	N/A
MEF2C	myocyte enhancer factor 2C [Source:HGNC Symbol;Acc:HGNC:6996]	N/A
CLOCK	clock circadian regulator [Source:HGNC Symbol;Acc:HGNC:2082]	1
NOVA1	NOVA alternative splicing regulator 1 [Source:HGNC Symbol;Acc:HGNC:7886]	2
BCL11A	B-cell CLL/lymphoma 11A [Source:HGNC Symbol;Acc:HGNC:13221]	3
PUM2	pumilio RNA binding family member 2 [Source:HGNC Symbol;Acc:HGNC:14958]	4
SP4	Sp4 transcription factor [Source:HGNC Symbol;Acc:HGNC:11209]	5
SMAD3	SMAD family member 3 [Source:HGNC Symbol;Acc:HGNC:6769]	6
FBN2	fibrillin 2 [Source:HGNC Symbol;Acc:HGNC:3604]	7
BTG1	B-cell translocation gene 1, anti-proliferative [Source:HGNC Symbol;Acc:HGNC:1130]	8
DTNA	dystrobrevin alpha [Source:HGNC Symbol;Acc:HGNC:3057]	9
WNT5A	Wnt family member 5A [Source:HGNC Symbol;Acc:HGNC:12784]	10
DACH1	dachshund family transcription factor 1 [Source:HGNC Symbol;Acc:HGNC:2663]	11
ZADH2	zinc binding alcohol dehydrogenase domain containing 2 [Source:HGNC Symbol;Acc:HGNC:28697]	12
NR3C1	nuclear receptor subfamily 3 group C member 1 [Source:HGNC Symbol;Acc:HGNC:7978]	13

Gene	Description	Rank
CITED2	Cbp/p300 interacting transactivator with Glu/Asp rich carboxy-terminal domain 2 [Source:HGNC Symbol;Acc:HGNC:1987]	14
GNB1	G protein subunit beta 1 [Source:HGNC Symbol;Acc:HGNC:4396]	15
PIK3R1	phosphoinositide-3-kinase regulatory subunit 1 [Source:HGNC Symbol;Acc:HGNC:8979]	16
TOB1	transducer of ERBB2, 1 [Source:HGNC Symbol;Acc:HGNC:11979]	17
ZIC2	Zic family member 2 [Source:HGNC Symbol;Acc:HGNC:12873]	18
ESRRG	estrogen related receptor gamma [Source:HGNC Symbol;Acc:HGNC:3474]	19
ANK3	ankyrin 3, node of Ranvier (ankyrin G) [Source:HGNC Symbol;Acc:HGNC:494]	20

Networks

miRNA-target-predictions-2013	31.36%
ATGTACA,MIR-493	7.72%
ATGTCAC,MIR-489	5.74%
AAGCACA,MIR-218	5.16%
TGTATGA,MIR-485-3P	4.54%
AATGTGA,MIR-23A,MIR-23B	4.21%
TTTGTAG,MIR-520D	3.99%
Transcriptional-factor-targets-2013	21.63%
AACTTT_UNKNOWN	6.19%
TTGTTT_V\$FOXO4_01	5.40%
V\$FOXD3_01	5.15%
V\$SOX5_01	4.89%
Co-expression	20.76%
Perou-Botstein-2000	2.18%
Molecular portraits of human breast tumours. Perou et al (2000). <i>Nature</i> Co-expression with 185,068 interactions from supplementary material	
Wang-Maris-2006	2.13%
Integrative genomics identifies distinct molecular classes of neuroblastoma and shows that multiple genes are targeted by regional alterations in DNA copy number. Wang et al (2006). <i>Cancer Res</i> Co-expression with 264,023 interactions from GEO	
Alizadeh-Staudt-2000	1.88%
Distinct types of diffuse large B-cell lymphoma identified by gene expression profiling. Alizadeh et al (2000). <i>Nature</i> Co-expression with 90,336 interactions from supplementary material	
Boldrick-Relman-2002	1.42%
Stereotyped and specific gene expression programs in human innate immune responses to bacteria. Boldrick et al (2002). <i>Proc Natl Acad Sci U S A</i> Co-expression with 111,707 interactions from supplementary material	
Mallon-McKay-2013	1.40%
StemCellDB: the human pluripotent stem cell database at the National Institutes of Health. Mallon et al (2013). <i>Stem Cell Res</i> Co-expression with 585,265 interactions from GEO	
Roth-Zlotnik-2006	1.26%
Gene expression analyses reveal molecular relationships among 20 regions of the human CNS. Roth et al (2006). <i>Neurogenetics</i> Co-expression with 669,062 interactions from GEO	

Co-expression	20.76%
Bild-Nevins-2006 B	1.19%
Oncogenic pathway signatures in human cancers as a guide to targeted therapies. Bild et al (2006). <i>Nature</i> Co-expression with 280,683 interactions from GEO	
Wang-Cheung-2015	1.18%
Genetic variation in insulin-induced kinase signaling. Wang et al (2015). <i>Mol Syst Biol</i> Co-expression with 411,047 interactions from GEO	
Burington-Shaughnessy-2008	1.03%
Tumor cell gene expression changes following short-term in vivo exposure to single agent chemotherapeutics are related to survival in multiple myeloma. Burington et al (2008). <i>Clin Cancer Res</i> Co-expression with 290,538 interactions from GEO	
Dobbin-Giordano-2005	1.01%
Interlaboratory comparability study of cancer gene expression analysis using oligonucleotide microarrays. Dobbin et al (2005). <i>Clin Cancer Res</i> Co-expression with 444,931 interactions from GEO	
Bahr-Bowler-2013	0.97%
Peripheral blood mononuclear cell gene expression in chronic obstructive pulmonary disease. Bahr et al (2013). <i>Am J Respir Cell Mol Biol</i> Co-expression with 274,949 interactions from GEO	
Ramaswamy-Golub-2001	0.87%
Multiclass cancer diagnosis using tumor gene expression signatures. Ramaswamy et al (2001). <i>Proc Natl Acad Sci U S A</i> Co-expression with 275,113 interactions from supplementary material	
Wu-Garvey-2007	0.81%
The effect of insulin on expression of genes and biochemical pathways in human skeletal muscle. Wu et al (2007). <i>Endocrine</i> Co-expression with 267,109 interactions from GEO	
Smirnov-Cheung-2009	0.76%
Genetic analysis of radiation-induced changes in human gene expression. Smirnov et al (2009). <i>Nature</i> Co-expression with 461,500 interactions from GEO	
Rieger-Chu-2004	0.68%
Toxicity from radiation therapy associated with abnormal transcriptional responses to DNA damage. Rieger et al (2004). <i>Proc Natl Acad Sci U S A</i> Co-expression with 259,974 interactions from GEO	
Noble-Diehl-2008	0.57%
Regional variation in gene expression in the healthy colon is dysregulated in ulcerative colitis. Noble et al (2008). <i>Gut</i> Co-expression with 661,539 interactions from GEO	
Chen-Brown-2002	0.53%
Gene expression patterns in human liver cancers. Chen et al (2002). <i>Mol Biol Cell</i> Co-expression with 282,241 interactions from supplementary material	
Rosenwald-Staudt-2001	0.39%
Relation of gene expression phenotype to immunoglobulin mutation genotype in B cell chronic lymphocytic leukemia. Rosenwald et al (2001). <i>J Exp Med</i> Co-expression with 114,694 interactions from supplementary material	

Co-expression	20.76%
Innocenti-Brown-2011	0.33%
Identification, replication, and functional fine-mapping of expression quantitative trait loci in primary human liver tissue. Innocenti et al (2011). <i>PLoS Genet</i>	
Co-expression with 603,765 interactions from GEO	
Perou-Botstein-1999	0.17%
Distinctive gene expression patterns in human mammary epithelial cells and breast cancers. Perou et al (1999). <i>Proc Natl Acad Sci U S A</i>	
Co-expression with 65,069 interactions from supplementary material	
Physical Interactions	14.02%
Arroyo-Aloy-2015	1.99%
Systematic identification of molecular links between core and candidate genes in breast cancer. Arroyo et al (2015). <i>J Mol Biol</i>	
Physical Interactions with 600 interactions from iRefIndex	
Maréchal-Zou-2014	1.70%
PRP19 transforms into a sensor of RPA-ssDNA after DNA damage and drives ATR activation via a ubiquitin-mediated circuitry. Maréchal et al (2014). <i>Mol Cell</i>	
Physical Interactions with 976 interactions from iRefIndex	
Jones-MacBeath-2006	1.69%
A quantitative protein interaction network for the ErbB receptors using protein microarrays. Jones et al (2006). <i>Nature</i>	
Physical Interactions with 151 interactions from iRefIndex	
Dyer-Sobral-2010	1.63%
The human-bacterial pathogen protein interaction networks of <i>Bacillus anthracis</i> , <i>Francisella tularensis</i> , and <i>Yersinia pestis</i> . Dyer et al (2010). <i>PLoS One</i>	
Physical Interactions with 514 interactions from iRefIndex	
Leung-Jones-2014	0.94%
Enhanced prediction of Src homology 2 (SH2) domain binding potentials using a fluorescence polarization-derived c-Met, c-Kit, ErbB, and androgen receptor interactome. Leung et al (2014). <i>Mol Cell Proteomics</i>	
Physical Interactions with 190 interactions from iRefIndex	
Carmon-Liu-2014	0.93%
RSPO-LGR4 functions via IQGAP1 to potentiate Wnt signaling. Carmon et al (2014). <i>Proc Natl Acad Sci U S A</i>	
Physical Interactions with 197 interactions from iRefIndex	
Soler-López-Aloy-2011	0.84%
Interactome mapping suggests new mechanistic details underlying Alzheimer's disease. Soler-López et al (2011). <i>Genome Res</i>	
Physical Interactions with 312 interactions from iRefIndex	
Lambert-Gingras-2015	0.76%
Proximity biotinylation and affinity purification are complementary approaches for the interactome mapping of chromatin-associated protein complexes. Lambert et al (2015). <i>J Proteomics</i>	
Physical Interactions with 318 interactions from BioGRID	
Weimann-Stelzl-2013 B	0.72%
A Y2H-seq approach defines the human protein methyltransferase interactome. Weimann et al (2013). <i>Nat Methods</i>	
Physical Interactions with 516 interactions from BioGRID	
Weimann-Stelzl-2013 A	0.60%

Physical Interactions

14.02%

Weimann-Stelzl-2013 A

A Y2H-seq approach defines the human protein methyltransferase interactome. Weimann et al (2013). *Nat Methods*

Physical Interactions with 114 interactions from BioGRID

Colland-Gauthier-2004

0.49%

Functional proteomics mapping of a human signaling pathway. Colland et al (2004). *Genome Res*

Physical Interactions with 842 interactions from iRefIndex

IREF-PUBMED

0.23%

Physical Interactions with 571 interactions from iRefIndex

IREF-BIOGRID

0.20%

Physical Interactions with 155,470 interactions from iRefIndex

Vinayagam-Wanker-2011

0.18%

A directed protein interaction network for investigating intracellular signal transduction. Vinayagam et al (2011). *Sci Signal*

Physical Interactions with 2,576 interactions from BioGRID

So-Colwill-2015

0.14%

Integrative analysis of kinase networks in TRAIL-induced apoptosis provides a source of potential targets for combination therapy. So et al (2015). *Sci Signal*

Physical Interactions with 647 interactions from BioGRID

Ewing-Figeys-2007

0.14%

Large-scale mapping of human protein-protein interactions by mass spectrometry. Ewing et al (2007). *Mol Syst Biol*

Physical Interactions with 5,362 interactions from iRefIndex

Yu-Vidal-2011

0.14%

Next-generation sequencing to generate interactome datasets. Yu et al (2011). *Nat Methods*

Physical Interactions with 1,108 interactions from BioGRID

Bandyopadhyay-Ideker-2010

0.12%

A human MAP kinase interactome. Bandyopadhyay et al (2010). *Nat Methods*

Physical Interactions with 611 interactions from iRefIndex

IREF-MPPI

0.11%

Physical Interactions with 382 interactions from iRefIndex

Markson-Sanderson-2009

0.11%

Analysis of the human E2 ubiquitin conjugating enzyme protein interaction network. Markson et al (2009). *Genome Res*

Physical Interactions with 700 interactions from iRefIndex

IREF-HPRD

0.10%

Physical Interactions with 34,206 interactions from iRefIndex

Li-Chen-2015

0.10%

Proteomic analyses reveal distinct chromatin-associated and soluble transcription factor complexes. Li et al (2015). *Mol Syst Biol*

Physical Interactions with 1,809 interactions from BioGRID

BIOGRID-SMALL-SCALE-STUDIES

0.07%

Physical Interactions with 58,871 interactions from BioGRID

Physical Interactions	14.02%
Zanon-Pichler-2013	0.05%
Profiling of Parkin-binding partners using tandem affinity purification. Zanon et al (2013). <i>PLoS One</i>	
Physical Interactions with 187 interactions from iRefIndex	
Wang-Yang-2011	0.03%
Toward an understanding of the protein interaction network of the human liver. Wang et al (2011). <i>Mol Syst Biol</i>	
Physical Interactions with 3,408 interactions from BioGRID	
Havugimana-Emili-2012	0.02%
A census of human soluble protein complexes. Havugimana et al (2012). <i>Cell</i>	
Physical Interactions with 13,716 interactions from BioGRID	
Genetic Interactions	6.39%
Lin-Smith-2010	6.12%
A genome-wide map of human genetic interactions inferred from radiation hybrid genotypes. Lin et al (2010). <i>Genome Res</i>	
Genetic Interactions with 4,820,370 interactions from supplementary material	
BIOGRID-SMALL-SCALE-STUDIES	0.27%
Genetic Interactions with 489 interactions from BioGRID	
Predicted	3.83%
I2D-MINT-Fly2Human	0.80%
MINT: a Molecular INTeraction database. Zanzoni et al (2002). <i>FEBS Lett</i>	
Predicted with 2,962 interactions from I2D	
I2D-MINT-Rat2Human	0.57%
MINT: a Molecular INTeraction database. Zanzoni et al (2002). <i>FEBS Lett</i>	
Predicted with 572 interactions from I2D	
I2D-vonMering-Bork-2002-High-Yeast2Human	0.54%
Comparative assessment of large-scale data sets of protein-protein interactions. von Mering et al (2002). <i>Nature</i>	
Predicted with 1,196 interactions from I2D	
I2D-BIND-Rat2Human	0.51%
BIND--a data specification for storing and describing biomolecular interactions, molecular complexes and pathways. Bader et al (2000). <i>Bioinformatics</i>	
Predicted with 548 interactions from I2D	
I2D-BIND-Fly2Human	0.43%
BIND--a data specification for storing and describing biomolecular interactions, molecular complexes and pathways. Bader et al (2000). <i>Bioinformatics</i>	
Predicted with 2,625 interactions from I2D	
Stuart-Kim-2003	0.38%
A gene-coexpression network for global discovery of conserved genetic modules. Stuart et al (2003). <i>Science</i>	
Predicted with 24,872 interactions from supplementary material	
I2D-INNATEDDB-Mouse2Human	0.32%
InnateDB: facilitating systems-level analyses of the mammalian innate immune response. Lynn et al (2008). <i>Mol Syst Biol</i>	
Predicted with 1,451 interactions from I2D	

Predicted	3.83%
I2D-IntAct-Fly2Human	0.16%
The IntAct molecular interaction database in 2010. Aranda et al (2010). <i>Nucleic Acids Res</i> Predicted with 3,912 interactions from I2D	
Wu-Stein-2010	0.12%
A human functional protein interaction network and its application to cancer data analysis. Wu et al (2010). <i>Genome Biol</i> Predicted with 87,829 interactions from supplementary material	
Co-localization	1.33%
Johnson-Shoemaker-2003	1.14%
Genome-wide survey of human alternative pre-mRNA splicing with exon junction microarrays. Johnson et al (2003). <i>Science</i> Co-localization with 426,332 interactions from GEO	
Schadt-Shoemaker-2004	0.19%
A comprehensive transcript index of the human genome generated using microarrays and computational approaches. Schadt et al (2004). <i>Genome Biol</i> Co-localization with 60,126 interactions from GEO	
Pathway	0.49%
NCI_NATURE	0.49%
Pathway with 10,122 interactions from Pathway Commons	
Shared protein domains	0.19%
INTERPRO	0.19%
Shared protein domains with 608,863 interactions from InterPro	