

Supplementary data on gene associations with genes known to be altered in gliomas

FBLN1

Supplementary Table S1: GAMMA-predicted genetic, phenotypic and disease associations for FBLN1

Gene	Predicted association	No. Shared Rels*	Obs/Exp**	Scores [†]	Lit_Str ^{††}	Lit MIM ^{††}
FBLN1	COL6A3	5	20.94	128	2.15	9.56
FBLN1	SPARC	10	11.8	123	6.33	6.15
FBLN1	COL5A2	5	19.98	112	0	
FBLN1	fibrillin-1	8	12.64	108	11.8	7.67
FBLN1	type I procollagen	8	11.54	101	0	
FBLN1	COL5A1	5	18.6	99	1.65	8.47
FBLN1	versican	7	11.93	95	14.13	8.59
FBLN1	elastin	10	8.61	91	10.13	5.23
FBLN1	alpha-cardiac actin	5	17.53	86	1	4.89
FBLN1	periostin	6	13.04	85	0.86	5.91
FBLN1	aggrecan	8	10.65	84	9.66	6.85
FBLN1	TYPE I COLLAGEN	11	7.74	83	3	0.05
FBLN1	COL3A1	5	13.87	83	1.2	7.54
FBLN1	decorin	8	9.75	82	3.73	5.21
FBLN1	extracellular matrix proteins	11	6.87	78	47.66	8.19
FBLN1	COL9A1	4	19.74	77	0	
FBLN1	fibronectin	14	5.35	76	55.66	5.32
FBLN1	fibulin-5	5	14.41	75	6.3	10.04
FBLN1	ADAMTS2	4	18.95	75	0	
FBLN1	MT1-MMP	7	10.75	75	0	
FBLN1	COL1A1	6	10.88	73	0.86	5.63
FBLN1	COL6A1	4	15.78	72	2.15	8.7
FBLN1	tenascin	8	7.9	64	13.33	6.17
FBLN1	extracellular matrix components	9	6.79	63	6.26	6.12
FBLN1	NIDOGEN	5	12.64	62	9.3	11.42
FBLN1	entactin	5	11.58	62	6.5	10.12
FBLN1	bone sialoprotein II	4	15.8	62	6	7.71
FBLN1	endostatin	7	8.76	62	4.06	5.54
FBLN1	TGF-beta1	12	5.27	62	4	-0.34
FBLN1	fibrillar collagen	6	9.9	62	0	
FBLN1	COL10A1	4	15.8	62	0	
FBLN1	lumican	5	12.17	59	1.3	8.01
FBLN1	SOX9	6	10.1	59	0	
FBLN1	fibrils	9	5.85	57	4.26	3.48
FBLN1	OPN	9	6.37	57	3.26	2.81
FBLN1	COL6A2	4	14.33	56	2.15	9.48
FBLN1	cell adhesion	13	4.34	55	7.93	3.82
FBLN1	Integrin	11	4.89	55	4.06	3.58
FBLN1	gp115	4	14.33	55	0	
FBLN1	VEGFR-2	7	8.03	55	0	

FBLN1	MYH11	4	13.96	54	0	
FBLN1	Proteoglycans	10	5.35	53	5.93	4.31
FBLN1	lysyl oxidase	5	9.67	53	0	
FBLN1	TGF-BETA	13	4.03	52	2.2	1.01
FBLN1	MMP-2	9	5.4	52	1.86	2.18
FBLN1	CTGF	7	7.32	52	1.53	3.26
FBLN1	fibulin-2	4	13.09	51	65.3	15.07
FBLN1	Keloids	6	8.9	51	0	
FBLN1	MMP-7	6	8.51	50	1.15	3.73
FBLN1	perlecan	5	8.59	49	9.86	8.22
FBLN1	Angiogenesis	12	3.99	49	8.53	3.15
FBLN1	ECM1	4	12.61	49	2.6	10.16
FBLN1	biglycan	5	9.25	48	1.86	5.52
FBLN1	fibulin-1	4	12.09	48	0	
FBLN1	PXDN	3	16.49	48	0	
FBLN1	matrix Gla protein	4	12.34	48	0	
FBLN1	COL4A1	4	11.55	48	0	
FBLN1	COL5A3	3	16.38	48	0	
FBLN1	lung development	6	8	48	0	
FBLN1	EGF	12	3.99	47	6.26	2.78
FBLN1	MMP-9	9	4.93	47	0.33	1.83
FBLN1	COL24A1	3	16.16	47	0	
FBLN1	matrix metalloproteinase 2	5	9.93	47	0	
FBLN1	stroma	10	4.76	46	13	2.19
FBLN1	COL4A6	3	15.68	46	0	
FBLN1	ADAMTS14	3	16	46	0	
FBLN1	TSP2	5	9.87	46	0	
FBLN1	TIMP-4	4	12.29	46	0	
FBLN1	TIMP-1	7	5.8	45	0.33	-0.1
FBLN1	PPROM	5	9.34	45	0	
FBLN1	TYPE II COLLAGEN	7	6.62	45	0	
FBLN1	basement membrane	11	3.99	44	31	5.59
FBLN1	tenomodulin	3	14.94	44	5	8.49
FBLN1	wound healing	10	4.25	44	1.33	1.83
FBLN1	laminin A chain	3	12.64	44	0.65	4.72
FBLN1	COL11A1	3	12.59	44	0	3.03
FBLN1	COL9A3	3	14.94	44	0	
FBLN1	LAMA5	3	14.84	44	0	
FBLN1	collagen type III	5	9.38	44	0	
FBLN1	collagen type I	7	6.19	43	2.2	3.94
FBLN1	muscle actin	6	6.39	43	1.3	5.44
FBLN1	connective tissue diseases	8	5.61	43	1	4.86
FBLN1	RUNX2	6	6.93	43	0	
FBLN1	COL12A1	4	11.17	43	0	
FBLN1	Osteoarthritis	8	4.97	43	0	
FBLN1	connective tissue	12	3.49	42	13.53	3.91
FBLN1	COL4A4	3	14.23	42	1	5.94
FBLN1	COL9A2	3	14.19	42	0	

FBLN1	c-sis	5	8.59	42	0	
FBLN1	alpha-smooth muscle	5	8.94	42	0	
FBLN1	cell migration	10	4.06	41	4.46	2.68
FBLN1	VEGF	11	3.75	41	2	1.23
FBLN1	tenascin-X	4	10.54	41	0	
FBLN1	Platelet-derived growth factor	9	4.82	41	0	
FBLN1	CXCL1	5	8.6	41	0	
FBLN1	cell surface	13	3.21	40	3.15	0.61
FBLN1	neurocan	4	10.85	40	2.8	10.54
FBLN1	articular cartilage	6	5.89	40	1.66	2.4
FBLN1	thrombospondin-1	6	6.6	40	1.53	4.57
FBLN1	maspin	4	10.26	40	0	
FBLN1	P3H1	3	14.29	40	0	
FBLN1	osteo glycin	3	11.88	40	0	
FBLN1	SM22	4	10.1	39	1	4.24
FBLN1	IRX3	3	13.4	39	0	
FBLN1	HOXC6	3	13.4	39	0	
FBLN1	GAS6	4	10.76	39	0	
FBLN1	tsp-1	5	8.23	39	0	
FBLN1	zinc metalloendopeptidase	3	13.71	39	0	
FBLN1	Trichostatin A	6	6.89	39	0	
FBLN1	EFEMP1	4	9.87	38	4.9	11.85
FBLN1	growth factor	15	2.63	38	4.5	2.88
FBLN1	TIMP-3	5	7.34	38	0.66	5.29
FBLN1	chondroadherin	3	13.22	38	0	
FBLN1	canstatin	3	12.99	38	0	
FBLN1	estrogen receptor	9	4.03	37	11.2	2.2
FBLN1	nidogen-2	3	12.45	37	4.4	13.14
FBLN1	CYR61	4	8.73	37	1.15	5.16
FBLN1	BFGF	9	4.2	37	1	1.5
FBLN1	Transforming growth factor	8	4.76	37	1	-0.32
FBLN1	MMP-1	7	5.3	37	0.5	4.16
FBLN1	collagen matrix	5	6.93	37	0	
FBLN1	alpha-smooth muscle actin	6	5.37	37	0	
FBLN1	fibrillin-2	4	9.3	36	3.9	10.37
FBLN1	dermal fibroblasts	7	5.19	36	0	
FBLN1	LTBP-1	3	12.41	36	0	
FBLN1	COL11A2	3	12.29	36	0	
FBLN1	CXCR7	3	12.37	36	0	
FBLN1	tsp-2	3	10.74	36	0	
FBLN1	HOXB5	3	12.29	36	0	
FBLN1	lubricin	3	12.12	35	3	4.55
FBLN1	cell proliferation	13	2.77	35	2.8	-0.29
FBLN1	BONE SIALOPROTEIN	5	7.31	35	0.5	5.38
FBLN1	endoglin	5	7.4	35	0.25	3.78
FBLN1	DKK1	4	9.21	35	0	
FBLN1	BMP-2	6	6.06	35	0	
FBLN1	BAI1	3	12.12	35	0	

FBLN1	proliferative diabetic retinopathy	4	9.04	35	0	
FBLN1	fibromodulin	4	9.18	35	0	
FBLN1	IGFBP-5	5	7.38	34	2	7.98
FBLN1	dermis	7	4.21	34	1.2	2.33
FBLN1	mitogen-activated protein kinase	11	3.3	34	0.25	-1.09
FBLN1	PDLIM5	3	12	34	0	
FBLN1	types I and III	5	6.83	34	0	
FBLN1	MMP-13	5	6.67	34	0	
FBLN1	homodimer	8	4.51	34	0	
FBLN1	microfibrils	4	7.56	33	4.06	6.94
FBLN1	vitronectin	6	5.24	33	3.9	5.86
FBLN1	syndecan-4	4	8.4	33	1.3	7.35
FBLN1	keratocan	3	11.34	33	0	
FBLN1	S100A4	4	8.4	33	0	
FBLN1	Procollagen	6	5.66	33	0	
FBLN1	COL4A5	3	10.29	33	0	
FBLN1	other collagen	4	8.72	32	1.3	9
FBLN1	stromal fibroblasts	4	7.22	32	0.66	5.39
FBLN1	osteoblast differentiation	5	6.19	32	0.33	3.19
FBLN1	HTRA1	3	10.92	32	0	
FBLN1	Nasal Polyps	5	6.77	32	0	
FBLN1	mRNA decay	5	7.2	32	0	
FBLN1	CD29	5	6.54	32	0	
FBLN1	COMP	4	8.36	32	0	
FBLN1	mesenchymal stem cells	7	4.69	32	0	
FBLN1	Laminin	8	3.85	31	8.13	5.03
FBLN1	matrigel	6	5.09	31	2.4	4.18
FBLN1	caveolin-1	6	5.26	31	1.3	4.31
FBLN1	PEDF	4	7.7	31	1.2	4.27
FBLN1	pepsin	6	5.3	31	1	5.38
FBLN1	LYSYL HYDROXYLASE	3	10.74	31	0	
FBLN1	alpha-1-antitrypsin	6	5.33	31	0	
FBLN1	Neointima	5	6.59	31	0	
FBLN1	Hypertrophic scar	4	8.02	31	0	
FBLN1	osteocalcin	6	4.88	31	0	
FBLN1	osteocytes	5	6.56	31	0	
FBLN1	ADAMTS-2	3	10.49	31	0	
FBLN1	Cyanogen Bromide	6	5.35	31	0	
FBLN1	ELF3	3	10.53	31	0	
FBLN1	EGR-1	6	5.31	31	0	
FBLN1	Progesterone	9	3.4	30	7.3	3.57
FBLN1	laminin-1	4	7.52	30	7.2	10.48
FBLN1	fibulin-4	3	10.62	30	3.1	12.32
FBLN1	angiogenesis inhibitor	5	6.09	30	3	3.35
FBLN1	aortic smooth muscle	6	4.92	30	1.3	4.36
FBLN1	desmin	7	4.05	30	1.3	3.9
FBLN1	Collagenase	7	4.51	30	0.5	3.66
FBLN1	BMP-1	3	10.17	30	0	3.57

FBLN1	adipogenesis	5	6.23	30	0	
FBLN1	lung fibroblasts	6	5.18	30	0	
FBLN1	lymph node metastasis	6	5.14	30	0	
FBLN1	SMAD3	5	6	30	0	
FBLN1	growth plate	5	6.21	30	0	
FBLN1	Dexamethasone	10	3.08	29	2.8	3.58
FBLN1	ADAMTS-5	3	10.06	29	2.8	7.58
FBLN1	ADAMTS	3	9.96	29	2	6.52
FBLN1	signal transduction	11	2.81	29	2	-1.12
FBLN1	PAI-1	7	4.39	29	0.33	1.36
FBLN1	periodontal ligament	5	6.1	29	0	
FBLN1	skin fibroblasts	7	3.95	29	0	
FBLN1	cruciate ligament	5	6.19	29	0	
FBLN1	Systemic sclerosis	6	5.05	29	0	
FBLN1	Fibrosis	10	2.89	29	0	
FBLN1	Breast cancer	12	2.47	28	22	1.22
FBLN1	Prostate cancer	9	3.22	28	4.05	-0.37
FBLN1	Dysplasia	8	3.64	28	3.9	4.82
FBLN1	phosphorylation	12	2.42	28	2	-3.06
FBLN1	BMP4	5	5.83	28	1.65	4.17
FBLN1	endothelial cell proliferation	6	4.82	28	1.3	5.23
FBLN1	ANG-2	4	6.43	28	0.5	5.95
FBLN1	cell growth	11	2.65	28	0.5	-0.41
FBLN1	collagen fibrils	6	4.43	28	0.33	1.87
FBLN1	stromelysin-3	3	8.41	28	0	
FBLN1	Thy-1	5	5.9	28	0	
FBLN1	monocyte chemoattractant protein-1	7	4.05	28	0	
FBLN1	MARFAN SYNDROME	5	5.9	28	0	
FBLN1	hypoxia-inducible	6	5	28	0	
FBLN1	ADAMTS-1	3	9.06	27	6	5.56
FBLN1	Hypermethylation	6	4.56	27	5	4.25
FBLN1	Matrix Metalloproteinases	7	3.65	27	1.53	1.38
FBLN1	MMP-3	5	5.19	27	1.2	3.55
FBLN1	c-Jun	8	3.36	27	0	
FBLN1	ERK1	8	3.38	27	0	
FBLN1	GDF-5	3	9.35	27	0	3.4
FBLN1	laminin B2 chain	3	9.96	27	0	
FBLN1	ABO	5	5.69	27	0	
FBLN1	osterix	4	7.03	27	0	
FBLN1	flt-1	5	5.53	27	0	
FBLN1	VEGF-A	5	5.42	27	0	
FBLN1	angiogenin	4	6.69	26	3.7	6.41
FBLN1	angiogenesis inhibitors	5	5.04	26	3.3	7.22
FBLN1	HEPATOCELLULAR CARCINOMA	10	2.73	26	2.9	0.24
FBLN1	Melanoma	9	3	26	2.73	1.03
FBLN1	BIRC5	3	9.29	26	1	6.7

FBLN1	metalloproteinase	7	3.57	26	0.5	4.17
FBLN1	Vcam-1	6	4.46	26	0	
FBLN1	osteogenesis	7	3.96	26	0	
FBLN1	pericytes	6	4.53	26	0	
FBLN1	TNAP	3	9.39	26	0	
FBLN1	MMP-8	4	6.74	26	0	
FBLN1	smooth muscle cell proliferation	5	5.6	26	0	
FBLN1	myofibroblast phenotype	3	7.91	26	0	
FBLN1	endothelial cell migration	5	5.68	26	0	
FBLN1	Lectin	8	3.07	25	7.6	3.91
FBLN1	cell motility	7	3.78	25	3.6	5.62
FBLN1	brevican	3	9.13	25	2.8	10.8
FBLN1	mineralization	6	3.71	25	1.5	4.91
FBLN1	post-translational modifications	8	3.44	25	0.5	2.93
FBLN1	pulmonary fibrosis	6	4.4	25	0	
FBLN1	PDGF-A	4	6.45	25	0	
FBLN1	collagen deposition	5	5.31	25	0	
FBLN1	TGFBI	3	8.64	25	0	
FBLN1	RNase	7	3.43	25	0	
FBLN1	Adipocytes	8	2.99	25	0	
FBLN1	RHOA	6	4.38	25	0	
FBLN1	integrin alphaVbeta3	4	6.37	25	0	
FBLN1	collagen metabolism	4	6.79	25	0	
FBLN1	infarct	7	3.86	25	0	
FBLN1	mcp-1	6	3.8	25	0	
FBLN1	Adenovirus	7	3.42	24	1.15	0.39
FBLN1	E-Cadherin	6	3.73	24	0	
FBLN1	enzymatic digestion	6	4.07	24	0	
FBLN1	IL-1 alpha	6	4.2	24	0	
FBLN1	extracellular matrix deposition	4	6.33	24	0	
FBLN1	epithelial-mesenchymal transition	5	4.86	24	0	
FBLN1	ABDOMINAL AORTIC ANEURYSM	5	5.03	24	0	
FBLN1	Alkaline Phosphatase	9	2.76	24	0	
FBLN1	beta 2-Microglobulin	6	4.35	24	0	
FBLN1	Mov13	3	8.41	24	0	
FBLN1	collagen binding	4	6.25	24	0	
FBLN1	Liver fibrosis	6	3.94	24	0	
FBLN1	FLNA	3	8.24	24	0	
FBLN1	PDGFR	4	6.38	24	0	
FBLN1	Thermolysin	4	6.19	24	0	
FBLN1	adiponectin	5	5.12	24	0	
FBLN1	Myopia	4	5.86	23	6	2.31
FBLN1	metalloprotease	7	3.6	23	3.3	7.19
FBLN1	chondrogenesis	5	4.87	23	1	6.24
FBLN1	SynDecaN	3	8.22	23	1	4
FBLN1	IGFBP-3	5	4.7	23	0.65	1.83
FBLN1	Thrombospondin	4	5.1	23	0.33	3.57

FBLN1	RNA interference	8	3.01	23	0	
FBLN1	cadherin	5	4.84	23	0	
FBLN1	High myopia	3	8.05	23	0	1.52
FBLN1	IkappaBalpha	5	4.84	23	0	
FBLN1	endothelial cell surface	4	6.04	23	0	
FBLN1	autosomal dominant form	4	6.12	23	0	
FBLN1	miRNAs	6	4.21	23	0	
FBLN1	lymphangiogenesis	4	6.06	23	0	
FBLN1	Hyaluronic Acid	6	4.11	23	0	
FBLN1	N-terminal region	7	3.44	23	0	
FBLN1	collagen type II	4	6.15	23	0	
FBLN1	Hypertrophy	8	3.04	23	0	
FBLN1	Tissue inhibitor of metalloproteinase	4	5.89	23	0	1.95
FBLN1	Heparin	8	2.81	22	6.8	2.92
FBLN1	tissue remodeling	5	4.68	22	5.8	5.14
FBLN1	cardiovascular disease	8	2.9	22	3	-2.45
FBLN1	TNF-alpha	10	2.27	22	0.25	-0.27
FBLN1	IGF-I	7	3.02	22	0	
FBLN1	CYCLIN A	5	4.63	22	0	
FBLN1	Homeobox	5	4.68	22	0	
FBLN1	oxidative stress	9	2.43	22	0	
FBLN1	scleroderma	5	4.6	22	0	
FBLN1	Ehlers-Danlos syndrome	4	5.64	22	0	
FBLN1	BNP	4	5.6	22	0	
FBLN1	Obesity	8	2.89	22	0	
FBLN1	tissue development	4	6.13	22	0	
FBLN1	clusterin	4	5.64	22	0	
FBLN1	kinase inhibitor	6	4.06	22	0	
FBLN1	Bcl-2	8	2.92	22	0	
FBLN1	glyceraldehyde-3-phosphate dehydrogenase	6	3.79	22	0	
FBLN1	stress fibers	5	4.56	22	0	
FBLN1	RB1	4	5.82	22	0	
FBLN1	HIF-1alpha	5	4.17	22	0	
FBLN1	IL-6	9	2.5	22	0	
FBLN1	Alternative splicing	8	2.79	21	9.6	5.07
FBLN1	cathepsin D	5	4.07	21	6	5.8
FBLN1	Hepatic stellate	5	4.06	21	1.86	2.84
FBLN1	neural crest	6	3.76	21	1.8	3.87
FBLN1	ANG-1	4	5.56	21	1.8	6.75
FBLN1	Colon cancer	7	2.76	21	1	-1.3
FBLN1	homeostasis	9	2.38	21	0.25	0.91
FBLN1	vimentin	7	3.1	21	0	
FBLN1	ECM degradation	5	4.69	21	0	
FBLN1	Glioma	7	2.9	21	0	
FBLN1	DUCHENNE MUSCULAR DYSTROPHY	5	4.5	21	0	
FBLN1	TGF-beta type II receptor	4	5.59	21	0	

FBLN1	ROS	8	2.64	21	0	
FBLN1	Neovascularization	5	3.84	21	0	
FBLN1	reverse transcriptase	7	2.95	21	0	
FBLN1	TIMP-2	4	4.65	21	0	
FBLN1	Varicose veins	4	5.54	21	0	
FBLN1	regulatory elements	7	3.11	21	0	
FBLN1	beta-catenin	6	3.56	21	0	
FBLN1	BRDU	6	3.39	21	0	
FBLN1	Lung injury	6	3.53	21	0	
FBLN1	retinoic acid	7	2.98	20	15	-0.01
FBLN1	Glucocorticoids	8	2.66	20	3.9	3.26
FBLN1	transcriptional regulation	8	2.65	20	1.15	0.22
FBLN1	repetitive sequence	8	2.64	20	0.5	1.34
FBLN1	transcription polymerase	6	3.43	20	0.5	4.43
FBLN1	TGF-beta2	4	5.24	20	0.5	6.39
FBLN1	actin cytoskeleton	7	2.96	20	0.5	3.26
FBLN1	embryo fibroblasts	6	3.29	20	0	
FBLN1	VDR	5	4.19	20	0	
FBLN1	PROSTATE-SPECIFIC ANTIGEN	5	4.1	20	0	
FBLN1	osteoprotegerin	4	5.26	20	0	
FBLN1	collagen synthesis	5	4.09	20	0	
FBLN1	sulfated	6	3.43	20	0	
FBLN1	IL-1	8	2.54	20	0	
FBLN1	insulin-like growth factor binding protein	4	5.3	20	0	
FBLN1	Lung adenocarcinoma	5	4.15	20	0	
FBLN1	extracellular matrix remodeling	4	5.54	20	0	
FBLN1	glycosaminoglycans	6	3.32	20	0	

***No. shared rels:** Number of genes (out of 20 possible) consistently and specifically coexpressed with the target gene that are associated with this entity

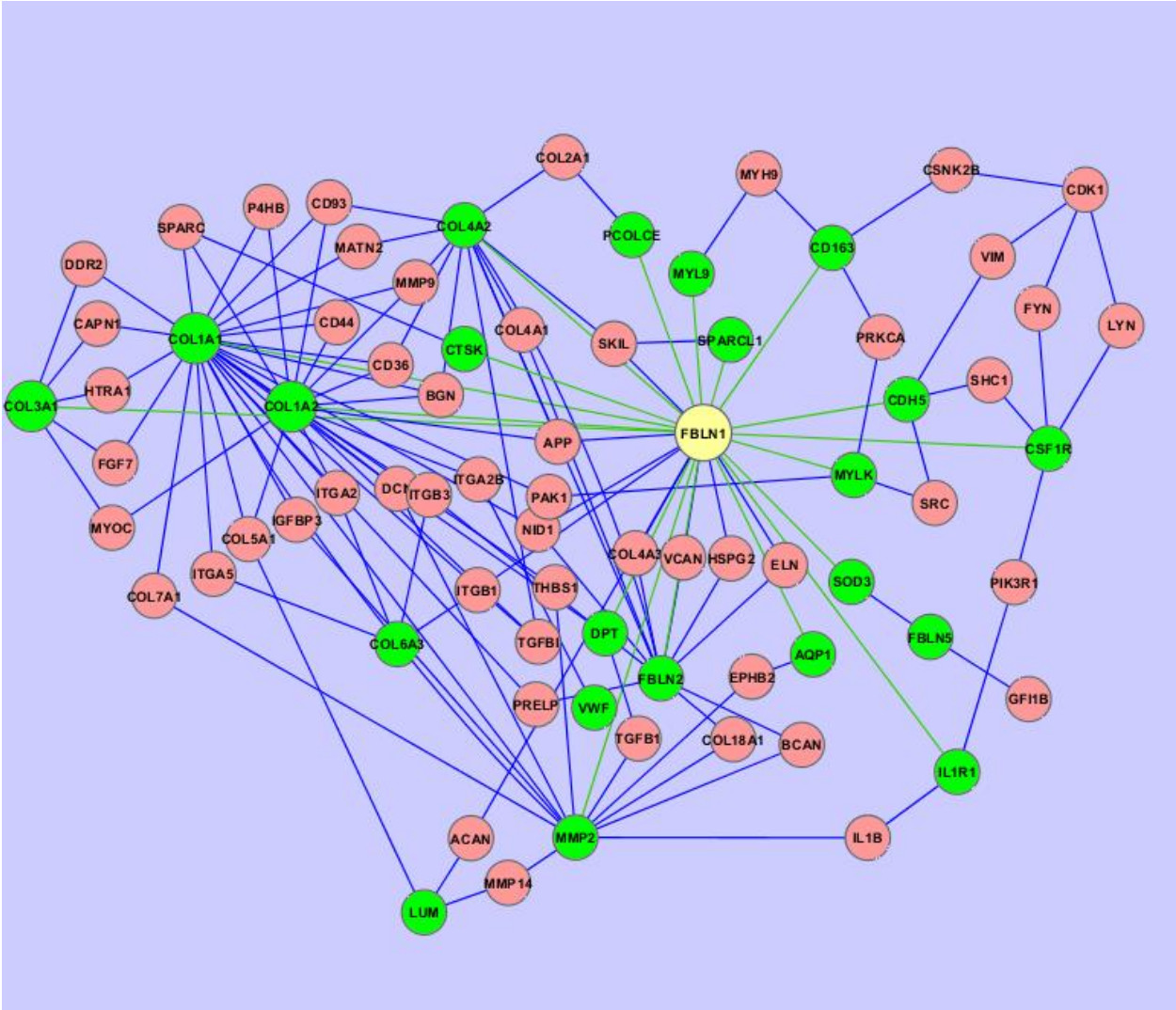
****Obs/Exp:** Statistical enrichment ratio—the number of observed commonalities to the number expected by chance alone, given a 20 identically connected genes within a random network of the same size

†Score: A priority score to rank the relative importance of the commonalities found

††Lit Str: If the predicted association is also a published association (i.e., apparently correct), Lit Str will be > 0. The higher this number, the more times the two terms are mentioned together in MEDLINE.

‡Lit MIM: Mutual information measure—a measure of how linked the two terms are in PubMed. The higher the value, the more the two terms are important to each other (e.g., insulin and glucose have a high MIM).

Supplementary Figure S1: Genes consistently coexpressed with FBLN1 (green nodes) and the protein–protein interactions they share (pink).



SPON1**Supplementary Table S2:** GAMMA-predicted genetic, phenotypic, and disease associations for SPON1

Gene	Predicted association	No. Shared Rels*	Obs/Exp**	Scores [†]	Lit_Str ^{††}	Lit MIM ^{††}
SPON1	SORCS2	4	48.37	187	0	
SPON1	MACROD2	3	32	92	0	
SPON1	NPAS3	3	28.8	82	0	
SPON1	RED2	3	28.8	82	0	
SPON1	COL1A1	7	11.37	78	0	
SPON1	COL6A2	5	15.4	75	0	
SPON1	NRXN3	3	24	69	0	
SPON1	MMP-13	7	9.45	65	1.3	6.78
SPON1	COL4A1	5	13.13	65	0	
SPON1	cadherin	8	8.26	63	0	
SPON1	GAS7	3	22.15	63	0	
SPON1	BONE SIALOPROTEIN	6	10.01	59	1.5	7.87
SPON1	CHD4	3	20.57	59	0	
SPON1	MAGI-2	3	20.57	59	0	
SPON1	BFGF	11	5.53	59	0	
SPON1	A2BP1	3	20.57	59	0	
SPON1	thrombospondin-1	7	8.27	57	9.6	9.46
SPON1	PRKAG2	3	19.2	55	0	
SPON1	TG-INTERACTING FACTOR	3	18.37	54	0	
SPON1	metalloproteinase	10	5.5	53	2.6	6.07
SPON1	COL12A1	4	13.62	53	0	
SPON1	regulatory elements	11	4.92	52	0	
SPON1	Thrombospondin	7	7.85	51	29	10.96
SPON1	ADAMTS-2	4	13.16	51	0	
SPON1	BREAST CANCER	15	3.44	50	0.5	-0.14
SPON1	MMP-3	7	7.35	50	0	
SPON1	COL6A3	4	12.46	49	0	
SPON1	TYPE II COLLAGEN	7	7.06	48	0	
SPON1	COL5A1	4	12.09	48	0	
SPON1	collagen type I	7	6.83	47	0	
SPON1	growth factor	15	3.14	46	3.1	2.2
SPON1	COL6A1	4	11.7	46	0	
SPON1	COL7A1	4	11.58	45	0	
SPON1	cell proliferation	15	3.07	44	1	2.26
SPON1	COL11A1	4	11.28	44	0	
SPON1	lysyl oxidase	5	8.85	43	0	
SPON1	DKK1	4	10.97	43	0	
SPON1	COL4A5	4	11.17	43	0	
SPON1	VEGF	11	3.94	42	1.3	1.67
SPON1	Proteoglycans	9	4.97	42	1	4.69

SPON1	biglycan	5	8.76	42	0	
SPON1	fibrillar collagen	5	8.44	42	0	
SPON1	Wnt	9	4.85	42	0	
SPON1	decorin	6	7.36	42	0	
SPON1	TGF-BETA	10	3.47	41	5.75	0.63
SPON1	p38 MAPK	9	4.84	41	2.1	3.73
SPON1	elastin	7	6.08	41	0	
SPON1	RUNX2	6	6.76	40	0.5	5.61
SPON1	muscle actin	6	6.83	40	0	
SPON1	dermal fibroblasts	7	5.68	39	0	
SPON1	tenascin-X	4	10.1	39	0	
SPON1	basement membrane	10	3.99	38	3.4	3.52
SPON1	CTGF	6	6.38	37	0	
SPON1	Angiogenesis	10	3.65	36	4.95	3.06
SPON1	fibrillin-1	5	7.6	36	0	
SPON1	stromelysin-3	4	9.2	36	0	
SPON1	Procollagen	6	6.15	36	0	
SPON1	COL3A1	4	9	35	0	
SPON1	BMP-7	5	6.97	34	2.9	6.01
SPON1	mitogen-activated protein kinase	11	3.2	34	0.5	1.73
SPON1	Adenovirus	9	3.98	34	0	
SPON1	MMP-9	8	4.37	34	0	
SPON1	EGF	10	3.59	34	0	
SPON1	Liver fibrosis	7	5.13	34	0	
SPON1	IL-6	11	3.1	33	2.9	1.68
SPON1	ovarian cancer	9	3.78	33	2.6	2.92
SPON1	fibronectin	8	3.49	33	1	2.07
SPON1	IL-8	9	3.85	33	0	
SPON1	HEPATOCELLULAR CARCINOMA	11	3.06	33	0	
SPON1	ERK1	9	3.82	33	0	
SPON1	aggrecan	5	6.85	33	0	
SPON1	retinoic acid	9	3.67	32	5.8	3.37
SPON1	cell surface	12	2.84	32	1.8	2.33
SPON1	SPARC	5	6.43	32	0.5	4.4
SPON1	vimentin	8	4.05	32	0	
SPON1	alpha-smooth muscle actin	6	5.45	32	0	
SPON1	skeletal development	5	6.64	32	0	
SPON1	Melanoma	10	3.43	32	0	
SPON1	type I procollagen	5	6.58	32	0	
SPON1	periodontal ligament	5	6.53	31	5.7	7.18
SPON1	heparin binding	6	5.51	31	3.6	7.51
SPON1	mesenchymal stem cells	7	4.62	31	1.3	3.01
SPON1	cell adhesion	9	3.29	30	3.8	3.17
SPON1	Osteoarthritis	7	4.38	30	3.7	3.32
SPON1	MMP-1	6	5.23	30	0	
SPON1	osterix	4	7.7	30	0	
SPON1	PDGF-BB	5	6.11	30	0	

SPON1	COL5A3	3	10.39	30	0	
SPON1	IGF-I	9	3.48	30	0	
SPON1	osteoblast differentiation	5	6	29	0	
SPON1	N-cadherin	5	5.91	29	0	
SPON1	Colon cancer	9	3.32	29	0	
SPON1	MMP-2	7	4.29	29	0	
SPON1	MMP-12	4	7.45	29	0	
SPON1	EGR-1	6	5.07	29	0	
SPON1	Integrin	8	3.65	28	1.3	3.34
SPON1	cell growth	11	2.63	28	0.5	1.93
SPON1	nestin	5	5.85	28	0	
SPON1	CYR61	4	7.42	28	0	
SPON1	ED1	4	7.22	28	0	
SPON1	fascin	3	9.61	28	0	
SPON1	SMAD3	5	5.83	28	0	
SPON1	dermis	7	4.19	28	0	
SPON1	cell death	11	2.51	27	3.4	2.11
SPON1	extracellular matrix components	6	4.6	27	2.6	6.3
SPON1	tsp-1	4	7.16	27	1.3	7.01
SPON1	TNF-alpha	11	2.48	27	1	1.38
SPON1	COLORECTAL CANCER	9	3.19	27	0.5	1.44
SPON1	OPN	6	4.67	27	0.5	4.58
SPON1	COL5A2	3	9.06	27	0	
SPON1	pulmonary fibrosis	6	4.66	27	0	
SPON1	TIMP-2	5	5.47	27	0	
SPON1	HSP47	4	7.05	27	0	
SPON1	COX-2	8	3.4	26	1.3	2.62
SPON1	integral to membrane	13	2.12	26	0.5	0.86
SPON1	extracellular matrix deposition	4	7.03	26	0	
SPON1	cell adhesion molecule	7	3.81	26	0	
SPON1	COL4A2	3	8.93	26	0	
SPON1	tenascin	5	5.39	26	0	
SPON1	PTHRP	5	5.36	26	0	
SPON1	PMP22	4	6.91	26	0	
SPON1	Hepatic stellate	6	4.64	26	0	
SPON1	Alkaline Phosphatase	9	2.85	25	8.4	4.12
SPON1	DNA methylation	7	3.7	25	0.5	3.08
SPON1	EGFR	8	3.27	25	0	
SPON1	Normal skin	6	4.36	25	0	
SPON1	beta-catenin	6	3.89	25	0	
SPON1	heat shock protein 47	3	8.67	25	0	
SPON1	oral squamous cell carcinoma	5	5.26	25	0	
SPON1	cell migration	7	3.16	24	1.9	2.45
SPON1	BMP-2	5	4.85	24	0.5	4.75
SPON1	Ehlers-Danlos syndrome	4	6.23	24	0	
SPON1	reverse transcriptase	8	3.14	24	0	
SPON1	VE-cadherin	4	6.17	24	0	
SPON1	BAG3	3	8.3	24	0	

SPON1	eosinophils	7	3.49	24	0	
SPON1	COL10A1	3	8.3	24	0	
SPON1	c-Jun	8	3.24	24	0	
SPON1	Immunoglobulin E	7	3.52	24	0	
SPON1	neural crest	5	4.47	23	6.15	3.81
SPON1	mineralization	6	3.93	23	2.6	5.22
SPON1	versican	4	6.19	23	1.3	7.14
SPON1	connective tissue	9	2.67	23	0.5	2.2
SPON1	autocrine	7	3.22	23	0	
SPON1	inflammatory response	9	2.64	23	0	
SPON1	pro-inflammatory	8	3.01	23	0	
SPON1	types I and III	4	6.14	23	0	
SPON1	bone regeneration	4	6.23	23	0	
SPON1	Collagenase	6	4.04	23	0	
SPON1	E-Cadherin	6	3.98	23	0	
SPON1	tumour necrosis	8	2.99	23	0	
SPON1	desmin	6	4.01	23	0	
SPON1	promoter methylation	4	5.95	23	0	
SPON1	Chemokine	7	3.5	23	0	
SPON1	normal kidney	5	5.01	23	0	
SPON1	oxidative stress	10	2.39	23	0	
SPON1	nucleus	11	2.15	22	2.6	2.06
SPON1	IL-2	8	2.88	22	0	
SPON1	Glioblastoma	6	3.75	22	0	
SPON1	fibrils	6	3.89	22	0	
SPON1	ETS-1	4	5.61	22	0	
SPON1	caveolin-1	5	4.62	22	0	
SPON1	STAT6	4	5.75	22	0	
SPON1	osteogenesis	6	3.73	22	0	
SPON1	Prostate cancer	8	2.91	22	0	
SPON1	Keloids	4	6.16	22	0	
SPON1	lung fibroblasts	5	4.54	22	0	
SPON1	embryonic development	8	2.87	21	4.8	6.39
SPON1	TGF-beta2	4	5.55	21	1.3	7.31
SPON1	MMP-7	4	5.52	21	1.3	6.75
SPON1	NF-kappaB	8	2.79	21	0.5	2.27
SPON1	IL-4	7	3.09	21	0	
SPON1	Bcl-2	8	2.79	21	0	
SPON1	Lung adenocarcinoma	5	4.36	21	0	
SPON1	PPARgamma	6	3.64	21	0	
SPON1	transcriptional regulation	9	2.45	21	0	
SPON1	tumor suppressor	7	2.98	21	0	
SPON1	INOS	7	3.08	21	0	
SPON1	focal adhesions	5	4.35	21	0	
SPON1	Fibrosis	8	2.66	21	0	
SPON1	CD29	4	5.55	21	0	
SPON1	RNase	7	3.22	21	0	
SPON1	tissue remodeling	5	4.54	21	0	

SPON1	extracellular matrix proteins	5	3.72	20	8.8	6.5
SPON1	osteocalcin	5	4.09	20	1	5.41
SPON1	Gata-3	4	5.27	20	0.5	6.91
SPON1	Alternative splicing	7	2.75	20	0	
SPON1	bone development	4	5.18	20	0	
SPON1	TIMP-1	5	4.12	20	0	
SPON1	TIMP-3	4	5.55	20	0	
SPON1	transmembrane	9	2.3	20	0	-0.77
SPON1	IL-10	7	2.99	20	0	
SPON1	glycosylation	7	2.82	19	2.5	5.87
SPON1	extracellular matrix remodeling	4	5.45	19	0.5	7.97
SPON1	proinflammatory cytokines	8	2.46	19	0.5	2.13
SPON1	Astrocytes	7	2.8	19	0	
SPON1	infarct	6	3.44	19	0	
SPON1	Matrix Metalloproteinases	6	3.29	19	0	
SPON1	Calcineurin	5	3.96	19	0	
SPON1	epithelial-mesenchymal transition	5	4.31	19	0	
SPON1	lung development	4	5.01	19	0	
SPON1	chondrogenesis	4	4.99	19	0	
SPON1	cirrhosis	7	2.82	19	0	
SPON1	myogenin	4	5.3	19	0	
SPON1	signal transduction	9	2.25	19	0	
SPON1	Laminin	6	3.32	19	0	
SPON1	SOX9	4	5.13	19	0	
SPON1	caspase-3	7	2.75	19	0	
SPON1	PKC-delta	4	5	19	0	
SPON1	GLIOBLASTOMA MULTIFORME	6	3.29	19	0	
SPON1	GASTRIC CANCER	6	3.04	19	0	
SPON1	cyclin D1	6	3.3	19	0	
SPON1	JNK	7	3.03	19	0	
SPON1	homeostasis	8	2.27	18	1.15	1.22
SPON1	connective tissue diseases	5	3.74	18	0	
SPON1	OCT4	4	4.59	18	0	
SPON1	lysozyme	6	3.22	18	0	
SPON1	Cardiac Hypertrophy	5	3.66	18	0	
SPON1	endoplasmic reticulum	8	2.35	18	0	
SPON1	leptin	6	3.28	18	0	
SPON1	IDIOPATHIC PULMONARY FIBROSIS	4	4.87	18	0	
SPON1	adhesion molecules	6	2.8	17	5.1	3.44
SPON1	growth plate	4	4.33	17	4.2	5.77
SPON1	Hypertrophy	7	2.53	17	0	
SPON1	Bleomycin	5	3.55	17	0	
SPON1	Ubiquitin	6	3.05	17	0	
SPON1	Glioma	6	2.9	17	0	
SPON1	CD44	5	3.53	17	0	
SPON1	RANKL	4	4.31	17	0	

SPON1	Myocardial Infarction	7	2.6	17	0	
SPON1	FGF	5	3.66	17	0	
SPON1	ki-67	5	3.62	17	0	
SPON1	Pancreatic cancer	6	2.96	17	0	
SPON1	Spheroids	4	4.5	17	0	
SPON1	ROS	8	2.27	17	0	
SPON1	NOTCH1	4	4.53	17	0	
SPON1	Disintegrin	4	4.68	17	0	
SPON1	PGP 9.5	4	4.67	17	0	
SPON1	intestinal epithelial	6	3	17	0	
SPON1	terminal differentiation	6	2.91	16	4.2	5.08
SPON1	cell differentiation	7	2.41	16	1.3	3.21
SPON1	protein kinase C	7	2.32	16	0	
SPON1	Adenocarcinoma	7	2.41	16	0	
SPON1	collagen matrix	4	4.49	16	0	
SPON1	collagen deposition	4	4.2	16	0	
SPON1	Adipocytes	7	2.33	16	0	
SPON1	nerves	7	2.35	16	0	
SPON1	Preeclampsia	5	3.46	16	0	
SPON1	IL-1 alpha	5	3.52	16	0	
SPON1	PAI-1	5	3.37	16	0	
SPON1	ECM degradation	4	4.37	16	0	
SPON1	Fibrosarcoma	5	3.64	16	0	
SPON1	telomerase reverse transcriptase	4	4.29	16	0	
SPON1	BMP4	4	4.28	16	0	
SPON1	long bones	5	3.55	16	0	
SPON1	p16(INK4a)	4	4.11	16	0	
SPON1	paracrine	6	2.86	16	0	
SPON1	Amyloid	6	2.68	15	5.2	4.95
SPON1	TGF-beta1	6	2.62	15	3	-0.11
SPON1	angiotensin II	6	2.63	15	0.5	1.65
SPON1	wound healing	6	2.7	15	0	
SPON1	mammary tumor	6	2.69	15	0	
SPON1	EGFP	5	3.25	15	0	
SPON1	repetitive sequence	7	2.34	15	0	
SPON1	IL-1	7	2.24	15	0	
SPON1	IFN-gamma	7	2.26	15	0	
SPON1	Disulfide	6	2.63	15	0	
SPON1	Osteosarcoma	5	3.28	15	0	
SPON1	Cycloheximide	6	2.62	15	0	
SPON1	Colitis	5	3.21	15	0	
SPON1	Angiotensin	5	3.17	15	0	
SPON1	transcription start site	5	3.22	15	0	

***No. shared rels:** Number of genes (out of 20 possible) consistently and specifically coexpressed with the target gene that are associated with this entity

****Obs/Exp:** Statistical enrichment ratio—the number of observed commonalities to the number expected by chance alone, given a 20 identically connected genes within a random network of the same size

†Score: A priority score to rank the relative importance of the commonalities found

††Lit Str: If the predicted association is also a published association (i.e., apparently correct), Lit Str will be > 0. The higher this number, the more times the two terms are mentioned together in MEDLINE.

¶Lit MIM: Mutual information measure—a measure of how linked the two terms are in PubMed. The higher the value, the more the two terms are important to each other (e.g., insulin and glucose have a high MIM).

SLIT3**Supplementary Table S3: GAMMA-predicted genetic, phenotypic, and disease associations for SLIT3**

Gene	Predicted association	No. Shared Rels*	Obs/Exp**	Scores†	Lit_Str††	Lit MIM††
SLIT3	SORCS2	5	60.37	291	0	
SLIT3	MACROD2	4	48	184	0	
SLIT3	NPAS3	4	42.66	163	0	
SLIT3	RED2	4	42.66	163	0	
SLIT3	TEX14	3	49.16	145	0	
SLIT3	ORAI3	3	48.5	141	0	
SLIT3	ORAI2	3	48.5	141	0	
SLIT3	GAS7	4	32	122	0	
SLIT3	NRXN3	4	32	122	0	
SLIT3	CHD4	4	29.53	113	0	
SLIT3	TRPC2	3	37.37	111	0	
SLIT3	A2BP1	4	27.42	105	0	
SLIT3	PRKAG2	4	27.42	105	0	
SLIT3	GABRG3	3	32	92	0	
SLIT3	TRP3	3	29.89	89	0	
SLIT3	ORAI1	3	26.81	79	0	
SLIT3	SPARC	8	9.07	72	1.3	6.45
SLIT3	TRPM7	3	23	68	0	
SLIT3	MMP-9	11	5.94	64	0	
SLIT3	MAGI-2	3	22.15	63	0	
SLIT3	bazooka	3	21.35	63	0	
SLIT3	cell adhesion	13	4.75	60	0	
SLIT3	STIM1	3	19.93	59	0	
SLIT3	Angiogenesis	13	4.45	56	11.2	5.9
SLIT3	fibronectin	12	4.81	56	1.3	3.13
SLIT3	Integrin	11	5.07	55	0	
SLIT3	ADAMTS	4	13.96	54	0	
SLIT3	polycystin-2	3	18.43	54	0	
SLIT3	growth factor	16	3.36	53	0.5	1.04
SLIT3	VE-cadherin	6	9.17	53	0	
SLIT3	Gata-2	6	8.78	50	0	
SLIT3	matrigel	8	6.39	49	0.5	6.2
SLIT3	TRPC3	3	16.66	49	0	
SLIT3	TRPM2	3	16.55	49	0	
SLIT3	TRPA1	3	17.62	49	0	
SLIT3	Melanoma	12	4.15	48	4.2	3.65
SLIT3	macrophage marker	5	9.81	48	0	
SLIT3	E-Cadherin	9	5.48	48	0	
SLIT3	sodium hydrogen exchanger	3	16.38	48	0	
SLIT3	TRPV4	3	16.49	48	0	
SLIT3	TRPC1	3	15.78	47	0	

SLIT3	TRPC6	3	15.78	47	0	
SLIT3	VEGFR-3	5	9.24	46	0	
SLIT3	Laminin	9	4.97	44	1.8	5.33
SLIT3	lactating animals	3	16	43	0	
SLIT3	VEGF	11	3.95	42	3.1	3.68
SLIT3	SOCE	3	14.23	42	0	
SLIT3	ADAMTS13	4	10.86	42	0	
SLIT3	cell migration	10	4.18	41	7.9	6.9
SLIT3	CD11B	7	5.98	41	0	
SLIT3	NHERF1	3	14.04	41	0	
SLIT3	BFGF	9	4.58	40	0	
SLIT3	cell proliferation	14	2.88	39	0.5	1.69
SLIT3	versican	5	8.11	39	0	
SLIT3	basement membrane	10	4.03	39	0	
SLIT3	F4 80	5	8.09	39	0	
SLIT3	RUNX2	6	6.59	38	0	
SLIT3	endocytosis	9	4.35	38	0	
SLIT3	TGF-BETA	11	3.6	38	0	
SLIT3	MMP-2	8	4.88	38	0	
SLIT3	Heparin	10	3.85	37	2.6	3.75
SLIT3	TIE2	5	7.7	37	0	
SLIT3	OPN	7	5.32	36	0	
SLIT3	connective tissue	11	3.31	36	0	
SLIT3	Proteoglycans	8	4.51	35	0	
SLIT3	CD18	6	6.06	35	0	
SLIT3	Fik-1	5	7.41	35	0	
SLIT3	VASCULAR ENDOTHELIAL GROWTH FACTOR RECEPTOR	5	7.2	35	0	
SLIT3	wound healing	9	4.03	35	0	
SLIT3	TIE-1	4	9.47	35	0	
SLIT3	EGF	10	3.59	34	2.8	4.29
SLIT3	ki-67	7	5.02	34	0	
SLIT3	TIMP-3	5	7.2	34	0	
SLIT3	cell surface	12	2.88	33	3.4	2.76
SLIT3	lysozyme	8	4.4	33	0	
SLIT3	VEGF-D	4	8.79	33	0	
SLIT3	GPIIb	5	6.85	33	0	
SLIT3	CD11C	5	6.68	33	0	
SLIT3	CD146	4	8.4	33	0	
SLIT3	von Willebrand factor	7	4.79	32	1.3	3.69
SLIT3	CD133	5	7.15	32	0	
SLIT3	SM22	4	8.31	32	0	
SLIT3	alpha-smooth muscle actin	6	5.5	32	0	
SLIT3	Vcam-1	7	4.89	32	0	
SLIT3	Glioma	9	3.72	31	3.4	4.48
SLIT3	tissue remodeling	6	5.47	31	0.5	6.51
SLIT3	Chemokine	8	4.1	31	0	

SLIT3	eosinophils	8	4.03	31	0	
SLIT3	Matrix Metalloproteinases	8	4.22	31	0	
SLIT3	Normal pancreas	5	6.39	31	0	
SLIT3	c-Jun	9	3.66	31	0	
SLIT3	ICAM-1	8	3.99	31	0	
SLIT3	C-FOS	9	3.46	30	1.3	3.18
SLIT3	ALCAM	4	8.06	30	0	
SLIT3	vimentin	8	3.92	30	0	
SLIT3	c-sis	4	7.74	30	0	
SLIT3	EGR-1	6	5.18	30	0	
SLIT3	spindle	8	4.04	30	0	
SLIT3	CD45	6	5.08	30	0	
SLIT3	kinase inhibitor	7	4.52	30	0	
SLIT3	decorin	5	6.26	30	0	
SLIT3	Oligosaccharides	8	4.01	30	0	
SLIT3	embryonic development	9	3.34	29	6.5	6.14
SLIT3	autocrine	8	3.67	29	3.6	6.66
SLIT3	extracellular matrix proteins	7	4.39	29	2.3	6.95
SLIT3	monocyte chemoattractant protein-1	7	4.22	29	1.3	4.95
SLIT3	flt-1	5	5.91	29	0.5	6.63
SLIT3	smooth muscle alpha-actin	4	7.45	29	0	
SLIT3	PAX5	4	7.38	29	0	
SLIT3	IFN-gamma	10	3.09	29	0	
SLIT3	angiogenin	4	7.45	29	0	
SLIT3	osteogenesis	7	4.26	29	0	
SLIT3	DKK1	3	9.69	28	3	5.81
SLIT3	BREAST CANCER	11	2.57	28	1.3	0.29
SLIT3	LDL	8	3.67	28	0	
SLIT3	PDGF-BB	5	5.91	28	0	
SLIT3	c-Myc	8	3.74	28	0	
SLIT3	FGF-1	5	5.9	28	0	
SLIT3	CD32	4	7.16	28	0	
SLIT3	CXCL12	5	5.7	27	2.6	7.75
SLIT3	cell differentiation	9	3.16	27	0.5	3.64
SLIT3	TNF-alpha	11	2.48	27	0	
SLIT3	CD34	6	4.57	27	0	
SLIT3	muscle actin	5	5.62	27	0	
SLIT3	M-CSF	6	4.68	27	0	
SLIT3	metalloproteinase	7	3.92	27	0	
SLIT3	Hypermethylation	6	4.57	26	2.6	6.71
SLIT3	IL-6	10	2.78	26	1.3	2.11
SLIT3	COL1A1	4	6.64	26	1.3	8.23
SLIT3	homodimer	7	4.03	26	0	
SLIT3	Lectin	8	3.41	26	0	
SLIT3	cyclin D1	7	3.86	26	0	

SLIT3	CHRONIC MYELOMONOCYTIC LEUKEMIA	4	6.84	26	0	
SLIT3	PDEF	3	9.03	26	0	
SLIT3	retinoic acid	8	3.33	26	0	
SLIT3	CCL21	4	7.15	26	0	
SLIT3	dendritic cell	8	3.31	26	0	
SLIT3	VEGF-C	4	6.69	26	0	
SLIT3	RHOA	6	4.51	25	2.6	6.43
SLIT3	endothelial cell proliferation	5	5.18	25	2.6	7.53
SLIT3	KLF4	4	6.45	25	0.5	7.53
SLIT3	Thrombospondin	5	5.43	25	0	
SLIT3	CD43	4	6.58	25	0	
SLIT3	GlUN2B	3	8.72	25	0	
SLIT3	fibrillin-1	4	6.37	25	0	
SLIT3	Alkaline Phosphatase	9	2.82	25	0	
SLIT3	L-selectin	5	5.11	25	0	
SLIT3	lymphangiogenesis	4	6.76	25	0	
SLIT3	embryo fibroblasts	7	3.82	25	0	
SLIT3	Fibrosarcoma	6	4.45	25	0	
SLIT3	CD44	6	4.28	25	0	
SLIT3	chemotaxis	7	3.67	24	2.6	5.66
SLIT3	signal transduction	10	2.47	24	0.5	2.42
SLIT3	desmin	6	4.05	24	0	
SLIT3	ANG-2	4	6.39	24	0	
SLIT3	estrogen receptor	8	3.16	24	0	
SLIT3	juxtamembrane	4	6.15	24	0	
SLIT3	langerin	3	8.19	24	0	
SLIT3	tumour necrosis	8	3.07	24	0	
SLIT3	macrophage differentiation	4	6.15	24	0	
SLIT3	pro-inflammatory	8	3.04	24	0	
SLIT3	VEGFR-2	5	4.94	24	0	
SLIT3	proinflammatory cytokines	9	2.77	24	0	
SLIT3	mcp-1	6	4.04	24	0	
SLIT3	cell motility	6	3.94	23	5.5	6.54
SLIT3	cell growth	10	2.39	23	3.1	3.95
SLIT3	HGF	6	4.04	23	0	
SLIT3	mitogen-activated protein kinase	9	2.66	23	0	
SLIT3	pericytes	5	4.8	23	0	
SLIT3	CD9	4	5.98	23	0	
SLIT3	reverse transcriptase	8	3.09	23	0	
SLIT3	yolk	6	3.93	23	0	
SLIT3	Leukemia	9	2.62	22	0.5	2.96
SLIT3	Alternative splicing	8	2.89	22	0	
SLIT3	JNK	7	3.23	22	0	
SLIT3	endoglin	4	5.62	22	0	
SLIT3	P105	4	5.86	22	0	

SLIT3	ANG-1	4	5.87	22	0	
SLIT3	DNA replication	9	2.59	22	0	
SLIT3	tyrosine phosphorylation	7	3.22	22	0	
SLIT3	NF-kappaB	8	2.88	22	0	
SLIT3	LFA-1	5	4.57	22	0	
SLIT3	proteolysis	8	2.87	22	0	
SLIT3	PU.1	4	5.8	22	0	
SLIT3	CD80	5	4.67	22	0	
SLIT3	scavenger receptor	5	4.84	22	0	
SLIT3	c-myb	4	5.76	22	0	
SLIT3	SMOOTH MUSCLE ACTIN	5	4.45	22	0	
SLIT3	MULTIDRUG RESISTANCE-ASSOCIATED PROTEIN	4	5.65	22	0	
SLIT3	cell-cell adhesion	5	4.61	22	0	
SLIT3	CD36	5	4.77	22	0	
SLIT3	CD68	5	4.62	22	0	
SLIT3	CD29	4	5.72	22	0	
SLIT3	F-actin	6	3.74	21	3.9	6.26
SLIT3	GASTRIC CANCER	7	3.08	21	2.6	3.34
SLIT3	VEGF-A	4	5.32	21	1.3	7.01
SLIT3	immune response	9	2.43	21	1	2.92
SLIT3	ERK1	7	3.04	21	0.5	4.02
SLIT3	HIF-1alpha	5	4.46	21	0	
SLIT3	aggrecan	4	5.58	21	0	
SLIT3	Immunoglobulin	9	2.46	21	0	
SLIT3	transcriptional regulation	9	2.49	21	0	
SLIT3	Renal cell carcinoma	6	3.56	21	0	
SLIT3	IL-4	7	3.1	21	0	
SLIT3	LYN	4	5.48	21	0	
SLIT3	PECAM-1	4	5.52	21	0	
SLIT3	MMP-1	5	4.38	21	0	
SLIT3	ETS-1	4	5.45	20	1.3	6.98
SLIT3	Squamous cell carcinoma	8	2.69	20	1	3.14
SLIT3	epithelial tumors	5	4.34	20	0.5	6.14
SLIT3	beta-catenin	6	3.48	20	0.5	4.3
SLIT3	Glucocorticoids	8	2.68	20	0.5	3.04
SLIT3	endostatin	4	5.12	20	0	
SLIT3	cytoplasmic domain	6	3.57	20	0	
SLIT3	metastatic disease	7	3.04	20	0	
SLIT3	Disease Progression	8	2.71	20	0	
SLIT3	Fibrosis	8	2.64	20	0	
SLIT3	dermis	6	3.58	20	0	
SLIT3	Src family kinases	4	5.27	20	0	
SLIT3	IL-8	7	3	20	0	
SLIT3	CD14	5	4.12	20	0	
SLIT3	IL-1	8	2.59	20	0	
SLIT3	Prostate cancer	8	2.58	19	2	3.48

SLIT3	C-Kit	5	3.98	19	0	
SLIT3	cell surface receptors	6	3.3	19	0	
SLIT3	platelets	8	2.57	19	0	
SLIT3	CD31	5	3.92	19	0	
SLIT3	MTOR	6	3.47	19	0	
SLIT3	adhesion molecules	7	2.91	19	0	
SLIT3	oxidative stress	9	2.15	19	0	
SLIT3	dermal fibroblasts	5	4.04	19	0	
SLIT3	Dexamethasone	8	2.53	19	0	
SLIT3	osteocalcin	5	4.04	19	0	
SLIT3	phospholipase	7	2.84	19	0	
SLIT3	Systemic sclerosis	5	4.04	19	0	
SLIT3	glycosylation	7	2.84	19	0	
SLIT3	SYK	4	4.99	19	0	
SLIT3	glycosaminoglycans	6	3.42	19	0	
SLIT3	Lung adenocarcinoma	5	4.14	19	0	
SLIT3	thrombospondin-1	4	4.79	19	0	
SLIT3	umbilical vein	6	3.15	18	0.5	4.31
SLIT3	transporter	8	2.43	18	0	
SLIT3	insulin	9	2.06	18	0	
SLIT3	ACE	6	3.09	18	0	
SLIT3	EGFR	7	2.78	18	0	
SLIT3	Multiple Sclerosis	7	2.82	18	0	
SLIT3	caspase-3	7	2.68	18	0	
SLIT3	FYN	4	4.81	18	0	
SLIT3	GM-CSF	6	3.08	18	0	
SLIT3	extracellular domain	6	3.13	18	0	
SLIT3	extracellular matrix components	5	3.83	18	0	
SLIT3	protein tyrosine kinase	5	3.82	18	0	
SLIT3	COLORECTAL CANCER	7	2.54	17	3.8	4.46
SLIT3	LUNG CANCER	8	2.37	17	2.6	2.55
SLIT3	DNA binding	8	2.28	17	1.5	3.87
SLIT3	HEPATOCELLULAR CARCINOMA	8	2.23	17	0.5	1.59
SLIT3	OCT4	4	4.52	17	0.5	6.42
SLIT3	CD16	4	4.49	17	0	
SLIT3	ROS	8	2.27	17	0	
SLIT3	Bcl-2	7	2.48	17	0	
SLIT3	CCR2	4	4.93	17	0	
SLIT3	Colon cancer	7	2.52	17	0	
SLIT3	skin fibroblasts	6	3.08	17	0	
SLIT3	collagen matrix	4	4.72	17	0	
SLIT3	AML	6	2.96	17	0	
SLIT3	CD11b CD18	4	4.4	17	0	
SLIT3	tenascin	4	4.33	17	0	
SLIT3	burn	5	3.54	17	0	
SLIT3	foam cells	4	4.45	17	0	

SLIT3	nuclear translocation	6	3.06	17	0	
SLIT3	Fibrinogen	6	2.93	17	0	
SLIT3	IGF-II	5	3.66	17	0	
SLIT3	paracrine	6	2.86	16	3.6	6.88
SLIT3	CTGF	4	4.24	16	2.6	6.64
SLIT3	rheumatoid arthritis	7	2.39	16	1.3	1.68
SLIT3	Adipocytes	7	2.34	16	0.5	2.07
SLIT3	Mannose	5	3.28	16	0	
SLIT3	STAT5	4	4.33	16	0	
SLIT3	c-SRC	4	4.07	16	0	
SLIT3	IL-2	7	2.46	16	0	
SLIT3	regulatory elements	6	2.73	16	0	
SLIT3	angiogenesis inhibitors	4	4.27	16	0	
SLIT3	TLR4	5	3.46	16	0	
SLIT3	hematopoiesis	5	3.34	16	0	
SLIT3	low-density lipoprotein	6	2.96	16	0	
SLIT3	bcr abl	4	4.07	16	0	
SLIT3	MMP-3	4	4.19	16	0	
SLIT3	transmembrane glycoprotein	4	4.2	16	0	
SLIT3	protein kinase A	6	2.89	16	0	
SLIT3	collagen deposition	4	4.21	16	0	
SLIT3	Normal breast	4	4.15	16	0	
SLIT3	protein tyrosine kinases	4	4.37	16	0	
SLIT3	protein kinase C	7	2.34	16	0	
SLIT3	Osteosarcoma	5	3.35	16	0	
SLIT3	mammary tumor	6	2.62	15	1.3	3.17
SLIT3	Gelatin	5	3.17	15	0	
SLIT3	cadherin	4	4.05	15	0	
SLIT3	Glioblastoma	5	3.14	15	0	
SLIT3	autoimmune diseases	7	2.32	15	0	
SLIT3	Antisense Oligonucleotides	5	3.29	15	0	
SLIT3	Phosphotyrosine	4	4.04	15	0	
SLIT3	malignant tumors	6	2.57	15	0	
SLIT3	phorbol 12-myristate 13-acetate	6	2.76	15	0	
SLIT3	fibrils	5	3.23	15	0	
SLIT3	CHRONIC MYELOID LEUKEMIA	5	3.24	15	0	
SLIT3	CD4	6	2.62	15	0	
SLIT3	CCR5	4	4.1	15	0	
SLIT3	organogenesis	5	3.12	14	4.7	7.4
SLIT3	ovarian cancer	6	2.52	14	1.3	2.35
SLIT3	soluble form	5	2.91	14	0	
SLIT3	G protein	6	2.55	14	0	
SLIT3	Ulcerative colitis	5	2.93	14	0	
SLIT3	phosphoprotein	5	2.95	14	0	
SLIT3	cirrhosis	6	2.45	14	0	

SLIT3	eNOS	5	3.07	14	0	
SLIT3	inflammatory response	7	2.07	14	0	
SLIT3	myeloperoxidase	5	2.85	14	0	
SLIT3	cell growth inhibition	5	2.93	14	0	
SLIT3	Adenovirus	6	2.59	14	0	
SLIT3	cytoskeleton	6	2.48	14	0	
SLIT3	actin cytoskeleton	5	2.84	13	1.3	4.56
SLIT3	gestation	7	2.03	13	1.3	2.62
SLIT3	SCID	5	2.93	13	1.3	4.52
SLIT3	Schizophrenia	6	2.18	13	1.3	2.35
SLIT3	host cell	6	2.37	13	0	
SLIT3	granulomas	5	2.8	13	0	
SLIT3	Trypsin	6	2.35	13	0	
SLIT3	sarcoma	5	2.79	13	0	
SLIT3	tyrosine kinase	6	2.21	13	0	
SLIT3	IGF-I	6	2.28	13	0	
SLIT3	pancreatic islets	5	2.93	13	0	
SLIT3	Paraffin	5	2.78	13	0	
SLIT3	cell activation	5	2.91	13	0	
SLIT3	peritoneal macrophages	5	2.88	13	0	
SLIT3	Fibrin	5	2.75	13	0	
SLIT3	p38 MAPK	5	2.75	13	0	
SLIT3	RNA interference	6	2.22	12	1.3	3.73
SLIT3	MULTIPLE MYELOMA	5	2.51	12	0	
SLIT3	extracellular signal-regulated	5	2.56	12	0	
SLIT3	bone marrow transplantation	5	2.62	12	0	
SLIT3	Systemic lupus erythematosus	6	2.19	12	0	
SLIT3	parathyroid hormone	5	2.48	12	0	
SLIT3	hematopoietic stem cell	5	2.5	12	0	
SLIT3	embryonic stem cells	5	2.6	12	0	
SLIT3	miRNAs	5	2.52	11	1.5	4.8
SLIT3	Thymidine	5	2.41	11	0	
SLIT3	beta-galactosidase	5	2.42	11	0	
SLIT3	plasma protein	6	2.05	11	0	
SLIT3	Pancreatic cancer	5	2.43	11	0	
SLIT3	post-translational modifications	5	2.32	11	0	
SLIT3	primary tumor	5	2.26	11	0	
SLIT3	T cell activation	5	2.36	11	0	
SLIT3	cytokine production	5	2.43	11	0	
SLIT3	kinase activity	5	2.29	11	0	
SLIT3	G protein-coupled receptors	5	2.28	11	0	
SLIT3	catalytic activity	6	2.03	11	0	
SLIT3	repetitive sequence	6	2.02	11	0	
SLIT3	morphogenesis	5	2.24	10	1.8	5.83

SLIT3	Cycloheximide	5	2.22	10	1.3	4.65
SLIT3	polysaccharide	5	2.22	10	1	4.34
SLIT3	COX-2	5	2.16	10	0.5	3.05
SLIT3	IL-10	5	2.15	10	0	
SLIT3	Disulfide	5	2.23	10	0	
SLIT3	angiotensin II	5	2.21	10	0	
SLIT3	Astrocytes	5	2.02	10	0	
SLIT3	solid tumors	5	2.1	10	0	
SLIT3	BAX	5	2.29	10	0	
SLIT3	mitosis	5	2.24	10	0	
SLIT3	blood-brain barrier	5	2.23	10	0	
SLIT3	carotid artery	5	2.19	10	0	
SLIT3	Fluorescein	5	2.38	10	0	
SLIT3	signal transduction pathways	5	2.13	10	0	
SLIT3	INOS	5	2.2	10	0	
SLIT3	Nodule	5	2.06	9	0	

***No. shared rels:** Number of genes (out of 20 possible) consistently and specifically coexpressed with the target gene that are associated with this entity

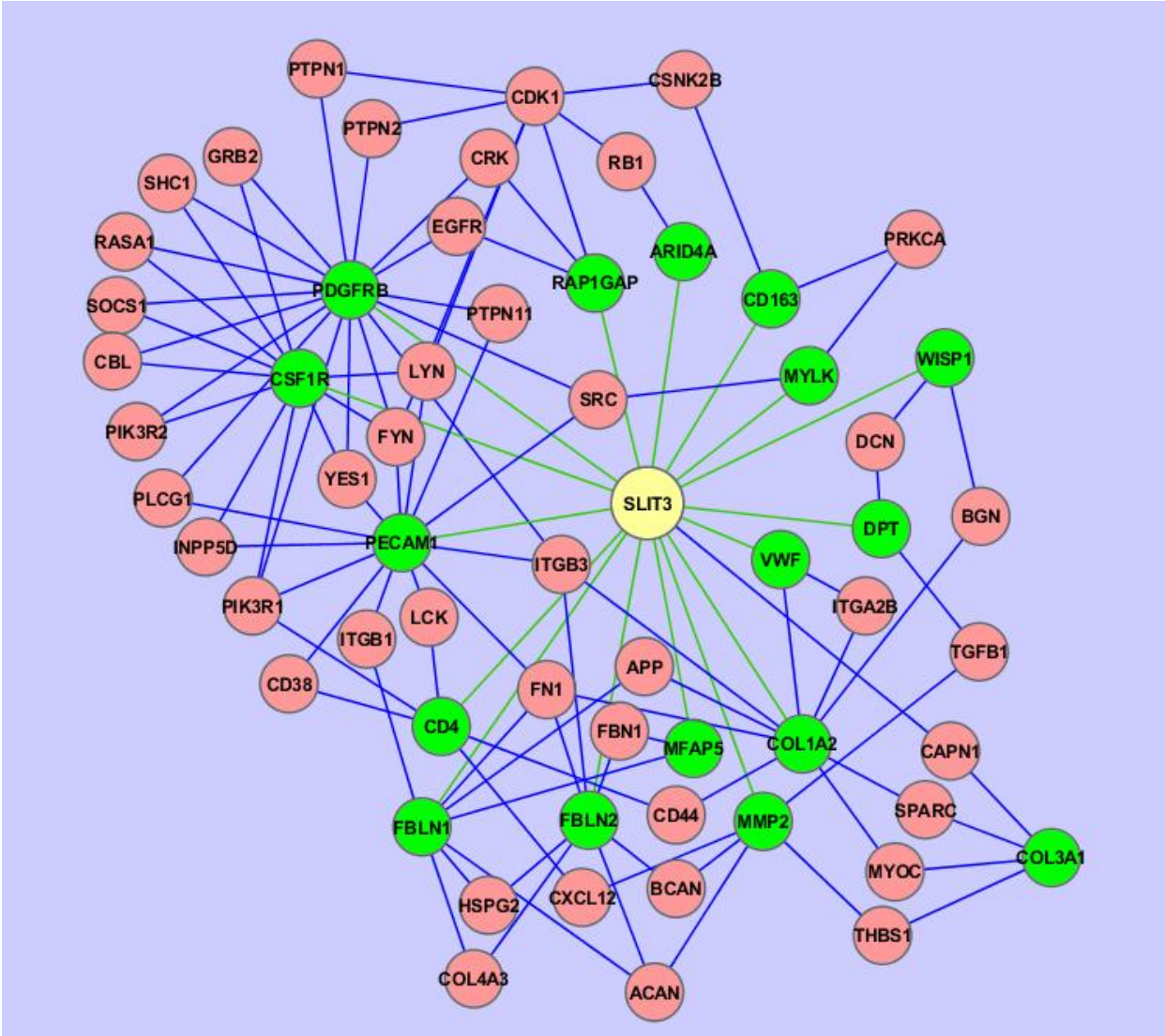
****Obs/Exp:** Statistical enrichment ratio—the number of observed commonalities to the number expected by chance alone, given a 20 identically connected genes within a random network of the same size

†Score: A priority score to rank the relative importance of the commonalities found

††Lit Str: If the predicted association is also a published association (i.e., apparently correct), Lit Str will be > 0. The higher this number, the more times the two terms are mentioned together in MEDLINE.

¶Lit MIM: Mutual information measure—a measure of how linked the two terms are in PubMed. The higher the value, the more the two terms are important to each other (e.g., insulin and glucose have a high MIM).

Supplementary Figure S3: Genes consistently coexpressed with SLIT3 (green nodes) and the protein-protein interactions they share (pink)



LINGO1

Supplementary Table S4: GAMMA-predicted genetic, phenotypic and disease associations for LINGO1

Gene	Predicted association	# Shared Rels*	Obs/Exp**	Scores [†]	Lit_Str ^{††}	Lit MIM ^{††}
LINGO1	NF68	5	19.15	91	0	
LINGO1	focal cortical dysplasia	4	16.91	65	2.6	8.22
LINGO1	SNAP-25	7	9.37	63	0	
LINGO1	neurofilament M	4	14.69	56	0	
LINGO1	Nesp55	3	17.35	51	0	
LINGO1	axonal regeneration	7	7.42	50	23.9	9.4
LINGO1	hippocampal neurons	10	4.92	48	0	
LINGO1	Kif5	3	16.58	46	0	
LINGO1	CRMP-2	4	11.5	44	0	
LINGO1	neuronal protein	6	7.55	43	2.1	7.14
LINGO1	PSD-95	6	7.38	43	0	
LINGO1	BASP1	3	13.4	39	0	
LINGO1	GAP-43	6	6.54	38	3	7.7
LINGO1	regulation of microtubule dynamics	3	12.99	38	0	
LINGO1	secretogranin II	4	9.87	38	0	
LINGO1	MAP1B	4	9.6	37	0	
LINGO1	axonal transport	6	5.98	35	0	
LINGO1	motor neurons	8	4.31	34	1.5	5.11
LINGO1	neuron-specific protein	3	11.07	33	0	
LINGO1	Neuroblastoma	11	3.1	33	0	
LINGO1	NOGO	3	9.35	32	44.6	11.86
LINGO1	mature neurons	5	6.48	32	0.5	6.62
LINGO1	spinophilin	3	11.03	32	0	
LINGO1	mRNA localization	4	8.25	32	0	
LINGO1	synaptophysin	7	4.76	32	0	
LINGO1	beta-tubulin	6	5.2	31	0	
LINGO1	SCG10	3	10.53	31	0	
LINGO1	axon extension	3	10.5	30	1.3	9.1
LINGO1	alpha-internexin	3	10.5	30	0	
LINGO1	Neurofilament Proteins	4	7.52	30	0	
LINGO1	Synaptotagmin	4	7.86	30	0	
LINGO1	growth cone	5	5.84	29	4.6	7.48
LINGO1	7B2	3	9.96	29	0	
LINGO1	myelin-associated glycoprotein	4	7.12	28	8.7	9.43
LINGO1	nerve regeneration	5	5.64	28	4.2	5.9
LINGO1	neurofilament	7	4.12	28	0	
LINGO1	pyramidal neurons	7	4.29	27	0	
LINGO1	retinal ganglion	5	4.95	26	4.6	6.51
LINGO1	Astrocytes	8	3.36	26	4.2	2.95

LINGO1	Kinesin	5	5.38	26	0	
LINGO1	tubulin binding	3	9.06	26	0	
LINGO1	Syntaxin	4	6.64	25	0	
LINGO1	VAMP2	3	8.72	25	0	
LINGO1	postsynaptic density-95	3	8.67	25	0	
LINGO1	immature neurons	4	6.42	24	2.1	7.11
LINGO1	brain development	7	3.4	24	3.1	5
LINGO1	methylazoxymethanol	3	8.87	24	0	
LINGO1	OLIG2	3	8.31	24	0	
LINGO1	drg neurons	5	4.99	24	0	
LINGO1	DCX	4	6.36	24	0	
LINGO1	neurite growth	4	5.85	23	4.8	9.35
LINGO1	dorsal root	7	3.39	23	6.1	5.96
LINGO1	neural stem cells	5	4.86	23	2.1	3.57
LINGO1	dendrites	7	3.35	23	0	
LINGO1	synapsin I	4	5.95	23	0	
LINGO1	stathmin	4	5.92	23	0	
LINGO1	microtubules	9	2.56	22	0	
LINGO1	synaptic vesicles	6	3.78	22	0	
LINGO1	NEUROD	4	5.72	22	0	
LINGO1	microtubule-associated proteins	5	4.54	22	0	
LINGO1	Alzheimer`s disease	9	2.52	21	2.6	1.77
LINGO1	AMPA receptor	5	4.41	21	0	
LINGO1	NGF receptor	5	4.15	20	25.7	9.27
LINGO1	ganglion neurons	5	4.29	20	2	7.16
LINGO1	Kainic Acid	4	4.68	20	2.1	3.99
LINGO1	synaptic plasticity	5	4.3	20	0.5	3.46
LINGO1	gyrus	6	3.47	20	1.3	3.08
LINGO1	cerebellum	8	2.38	18	0	
LINGO1	glial fibrillary acidic protein	6	3.21	18	0	
LINGO1	myelination	4	4.58	17	22.3	8.71
LINGO1	spinal cord injury	5	3.51	17	25.2	6.5
LINGO1	sodium channel	6	2.97	17	0	
LINGO1	Status epilepticus	4	4.34	17	0	
LINGO1	BDNF	5	3.09	16	22	6.74
LINGO1	granule neurons	4	4.11	16	1	6.57
LINGO1	cortical neurons	5	3.41	16	1.8	4.43
LINGO1	Tubulin	6	2.68	16	0.5	3.56
LINGO1	PGP 9.5	4	4.24	16	0	
LINGO1	neurogenesis	5	3.27	16	0	
LINGO1	nestin	4	4.11	16	0	
LINGO1	NMDA receptor	6	2.83	16	0	
LINGO1	substantia nigra	5	3.04	15	2.6	3.59
LINGO1	neurodegenerative diseases	6	2.55	15	0.5	2.28
LINGO1	Spectrin	4	4.03	15	0	
LINGO1	Glioma	6	2.45	15	0	
LINGO1	alpha-synuclein	4	4.02	15	0	
LINGO1	sensory neurons	6	2.7	15	0	

LINGO1	neuron-specific enolase	5	3.13	15	0	
LINGO1	Parkinson`s disease	6	2.5	14	48.2	4.85
LINGO1	NGF	6	2.38	14	2.6	3.2
LINGO1	neuroendocrine	7	2.21	14	0	
LINGO1	cytoskeleton	7	2.08	14	0	
LINGO1	neurotransmitter release	5	3.2	14	0	
LINGO1	gangliosides	5	2.78	13	2.9	3.64
LINGO1	Schizophrenia	5	2.63	13	0	
LINGO1	neuropeptide Y	5	2.78	13	0	
LINGO1	tyrosine hydroxylase	5	2.65	13	0	
LINGO1	neural crest	5	2.77	13	0	
LINGO1	peripheral nervous system	5	2.8	13	0	
LINGO1	RNA binding	5	2.67	13	0	
LINGO1	glial cells	5	2.31	12	1.8	3.72
LINGO1	protein kinase C	6	2.1	12	0.5	0.83
LINGO1	vimentin	6	2.15	12	0	
LINGO1	CREB	5	2.49	12	0	
LINGO1	Pheochromocytoma	5	2.57	12	0	
LINGO1	white matter	5	2.3	11	0.5	1.91
LINGO1	Brain injury	5	2.31	11	0	
LINGO1	frontal cortex	5	2.39	11	0	
LINGO1	secretory granules	5	2.35	11	0	
LINGO1	C-FOS	5	2.07	10	0.5	2.27
LINGO1	substance P	5	2	9	0	

***No. shared rels:** Number of genes (out of 20 possible) consistently and specifically coexpressed with the target gene that are associated with this entity

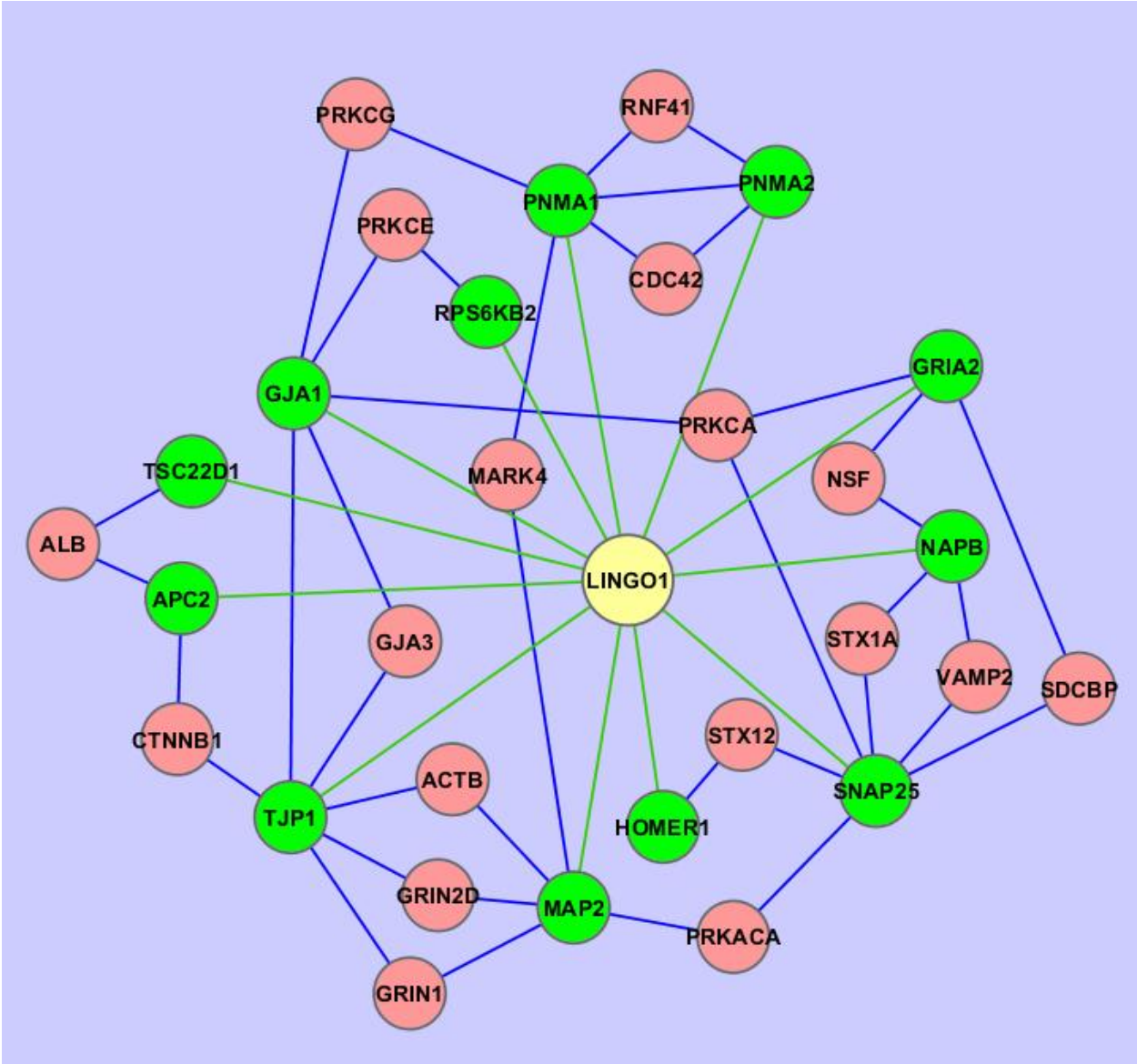
****Obs/Exp:** Statistical enrichment ratio—the number of observed commonalities to the number expected by chance alone, given a 20 identically connected genes within a random network of the same size

†Score: A priority score to rank the relative importance of the commonalities found

††Lit Str: If the predicted association is also a published association (i.e., apparently correct), Lit Str will be > 0. The higher this number, the more times the two terms are mentioned together in MEDLINE.

¶Lit MIM: Mutual information measure—a measure of how linked the two terms are in PubMed. The higher the value, the more the two terms are important to each other (e.g., insulin and glucose have a high MIM).

Supplementary Figure S4: Genes consistently coexpressed with LINGO1 (green nodes) and the protein–protein interactions they share (pink)



PLXNB2**Supplementary Table S5:** GAMMA-predicted genetic, phenotypic and disease associations for PLXNB2

Gene	Predicted association	# Shared Rels*	Obs/Exp**	Scores [†]	Lit_Str ^{††}	Lit MIM ^{††}
PLXNB2	Pancreatic cancer	12	5.77	68	0	0
PLXNB2	HSP27	8	7	54	0	0
PLXNB2	beta-catenin	10	5.55	54	0	0
PLXNB2	S100A4	6	9.25	53	0	0
PLXNB2	N-myc	7	7.71	52	0	0
PLXNB2	mammary tumor	11	4.79	51	0	0
PLXNB2	SPARC	7	7.35	51	0	0
PLXNB2	Wnt	10	5.24	51	0	0
PLXNB2	Colon cancer	12	4.23	49	0	0
PLXNB2	Glioma	11	4.58	49	0	0
PLXNB2	PLEXIN-A1	3	16.38	48	2.6	13.12
PLXNB2	COL3A1	5	9.7	48	0	0
PLXNB2	STAT3	9	5.44	47	0	0
PLXNB2	RHOA	8	5.87	46	1.8	7.37
PLXNB2	c-Myc	10	4.73	46	0	0
PLXNB2	vimentin	10	4.8	46	0	0
PLXNB2	HO-1	8	5.71	45	0	0
PLXNB2	Prostate cancer	12	3.87	45	0	0
PLXNB2	Renal cell carcinoma	9	5.1	45	0	0
PLXNB2	epithelial-mesenchymal transition	7	6.22	43	0	0
PLXNB2	CD44	8	5.41	42	0	0
PLXNB2	CYR61	5	8.38	41	0	0
PLXNB2	mesangial cell proliferation	5	8.19	40	0	0
PLXNB2	IL-6	12	3.38	40	0	0
PLXNB2	BFGF	9	4.47	40	0	0
PLXNB2	focal adhesions	7	5.86	40	0	0
PLXNB2	Tubulointerstitial fibrosis	5	8.23	40	0	0
PLXNB2	FAK	7	5.87	40	0	0
PLXNB2	dendritic cell	10	4	39	10.3	4.18
PLXNB2	cell motility	8	4.99	39	2.6	6.88
PLXNB2	Osteosarcoma	8	5.07	39	0	0
PLXNB2	ID1	5	7.9	39	0	0
PLXNB2	Glioblastoma	8	4.9	39	0	0
PLXNB2	TGF-BETA	11	3.53	38	0	0
PLXNB2	muscle actin	6	6.37	38	0	0
PLXNB2	integrin alphaVbeta3	5	7.84	38	0	0
PLXNB2	decorin	6	6.7	38	0	0
PLXNB2	thrombospondin-1	6	6.53	38	0	0
PLXNB2	retinoic acid	10	3.94	38	0	0
PLXNB2	N-cadherin	6	6.58	38	0	0

PLXNB2	SMAD2	6	6.32	37	0	0
PLXNB2	OPN	7	5.17	36	0	0
PLXNB2	Tumor suppressor	10	3.75	36	0	0
PLXNB2	TNF-alpha	13	2.87	36	0	0
PLXNB2	ATF3	5	7.23	36	0	0
PLXNB2	Integrin	9	4.05	36	0	0
PLXNB2	wound healing	9	3.98	35	3.1	5.66
PLXNB2	actin cytoskeleton	8	4.54	35	0.5	5.49
PLXNB2	COLORECTAL CANCER	10	3.55	35	0	0
PLXNB2	Hepatic stellate	7	5.2	35	0	0
PLXNB2	cell proliferation	13	2.68	34	1.3	2.62
PLXNB2	protease inhibitors	9	4.03	34	0	0
PLXNB2	p38 MAPK	8	4.34	34	0	0
PLXNB2	KLF4	5	7.08	34	0	0
PLXNB2	cell adhesion	10	3.53	34	0	0
PLXNB2	matrix metalloproteinase 2	5	7.24	34	0	0
PLXNB2	Melanoma	10	3.49	34	0	0
PLXNB2	FGF	7	5.07	34	0	0
PLXNB2	ischemia reperfusion	8	4.37	34	0	0
PLXNB2	galectin-3	6	6.09	34	0	0
PLXNB2	GLIOBLASTOMA MULTIFORME	8	4.29	34	0	0
PLXNB2	glial fibrillary acidic protein	8	4.43	34	0	0
PLXNB2	Angiogenesis	10	3.38	33	0.5	3.83
PLXNB2	type I procollagen	5	6.7	33	0.5	6.4
PLXNB2	BREAST CANCER	12	2.77	33	0	0
PLXNB2	ovarian cancer	9	3.75	33	0	0
PLXNB2	metalloproteinase	8	4.26	33	0	0
PLXNB2	embryo fibroblasts	8	4.3	33	0	0
PLXNB2	Fibrosarcoma	7	4.98	33	0	0
PLXNB2	beta 2-Microglobulin	7	5.06	33	0	0
PLXNB2	cell growth	12	2.84	33	0	0
PLXNB2	stromal fibroblasts	5	7.05	33	0	0
PLXNB2	MMP-9	8	4.21	33	0	0
PLXNB2	ERK1	9	3.76	33	0	0
PLXNB2	PAI-1	7	4.71	32	0	0
PLXNB2	14-3-3 sigma	4	8.2	32	0	0
PLXNB2	GADD45	5	6.63	32	0	0
PLXNB2	Neointima	5	6.64	32	0	0
PLXNB2	Lectin	9	3.73	32	0	0
PLXNB2	HEPATOCELLULAR CARCINOMA	11	3.02	32	0	0
PLXNB2	MGMT	5	6.72	32	0	0
PLXNB2	solid tumors	9	3.66	32	0	0
PLXNB2	c-Jun	9	3.69	32	0	0
PLXNB2	cytoskeleton	9	3.59	31	0.5	5.36
PLXNB2	UROKINASE	7	4.5	31	0	0
PLXNB2	gingival fibroblasts	5	6.52	31	0	0
PLXNB2	Astrocytes	9	3.53	31	0	0
PLXNB2	alpha-smooth muscle actin	6	5.2	31	0	0

PLXNB2	malignant gliomas	6	5.25	31	0	0
PLXNB2	Wnt-1	5	6.88	31	0	0
PLXNB2	vitronectin	6	5.32	31	0	0
PLXNB2	glycosylation	9	3.57	31	0	0
PLXNB2	stress fibers	6	5.42	31	0	0
PLXNB2	skin fibroblasts	8	4.03	31	0	0
PLXNB2	proinflammatory cytokines	10	3.05	30	2.6	4.49
PLXNB2	cell adhesion molecule	8	4.02	30	0.5	5.44
PLXNB2	ETS-1	5	6.27	30	0	0
PLXNB2	survivin	6	5.21	30	0	0
PLXNB2	MMP-13	5	6.17	30	0	0
PLXNB2	intestinal epithelial	8	3.91	30	0	0
PLXNB2	caveolin-1	6	5.21	30	0	0
PLXNB2	HNSCC	5	6.25	30	0	0
PLXNB2	IFN-gamma	10	3.12	30	0	0
PLXNB2	BMP-7	5	6.25	30	0	0
PLXNB2	activin A	5	6.24	30	0	0
PLXNB2	JAK2	6	5.14	30	0	0
PLXNB2	BMP-2	6	5.27	30	0	0
PLXNB2	EGFR	8	3.61	29	0	0
PLXNB2	beta-actin	6	4.71	29	0	0
PLXNB2	pro-inflammatory	9	3.33	29	0	0
PLXNB2	Progesterone	9	3.37	29	0	0
PLXNB2	LUNG CANCER	10	3.05	29	0	0
PLXNB2	aortic smooth muscle	6	5.01	29	0	0
PLXNB2	VDR	6	5.04	29	0	0
PLXNB2	anti-inflammatory	11	2.73	29	0	0
PLXNB2	C1R	4	7.56	29	0	0
PLXNB2	MMP-2	7	4.16	29	0	0
PLXNB2	ANGPTL4	4	7.58	29	0	0
PLXNB2	GM-CSF	8	3.86	29	0	0
PLXNB2	Bcl-2	9	3.15	28	0	0
PLXNB2	IDIOPATHIC PULMONARY FIBROSIS	5	5.75	28	0	0
PLXNB2	JNK	8	3.58	28	0	0
PLXNB2	inflammatory response	10	2.91	28	0	0
PLXNB2	resveratrol	6	4.76	28	0	0
PLXNB2	p70	6	5.05	28	0	0
PLXNB2	C-FOS	9	3.34	28	0	0
PLXNB2	MMP-1	6	4.9	28	0	0
PLXNB2	integral to membrane	13	2.13	27	1	3.22
PLXNB2	TIMP-1	6	4.68	27	0	0
PLXNB2	osteoblast differentiation	5	5.62	27	0	0
PLXNB2	Adenocarcinoma	9	3.09	27	0	0
PLXNB2	PDGF-BB	5	5.6	27	0	0
PLXNB2	membrane glycoprotein	6	4.76	27	0	0
PLXNB2	Cycloheximide	8	3.5	27	0	0
PLXNB2	dermal fibroblasts	6	4.63	27	0	0
PLXNB2	tissue transglutaminase	5	5.64	27	0	0

PLXNB2	paxillin	5	5.73	27	0	0
PLXNB2	glial cells	8	3.59	27	0	0
PLXNB2	GASTRIC CANCER	8	3.46	27	0	0
PLXNB2	EPHA2	4	7.16	27	0	0
PLXNB2	cell differentiation	9	3.12	27	0	0
PLXNB2	clusterin	5	5.55	27	0	0
PLXNB2	shear stress	6	4.76	27	0	0
PLXNB2	primary tumor	8	3.47	27	0	0
PLXNB2	IL-12	7	3.95	26	3.7	4.89
PLXNB2	immune response	10	2.7	26	1.3	2.85
PLXNB2	chondrogenesis	5	5.61	26	0.5	7.47
PLXNB2	COX-2	8	3.37	26	0	0
PLXNB2	PC-3	6	4.41	26	0	0
PLXNB2	E-Cadherin	7	3.76	26	0	0
PLXNB2	ECM degradation	5	5.28	26	0	0
PLXNB2	cyclin D1	7	3.75	26	0	0
PLXNB2	nestin	5	5.49	26	0	0
PLXNB2	EDNRB	4	6.91	26	0	0
PLXNB2	post-transcriptional regulation	6	4.49	26	0	0
PLXNB2	Meningiomas	6	4.62	26	0	0
PLXNB2	androgen receptor	7	4.01	26	0	0
PLXNB2	extracellular matrices	5	5.54	26	0	0
PLXNB2	SM22	4	6.98	26	0	0
PLXNB2	adhesion molecules	8	3.35	26	0	0
PLXNB2	transformed phenotype	5	5.71	26	0	0
PLXNB2	collagen synthesis	6	4.61	26	0	0
PLXNB2	Thrombospondin	5	5.31	25	1.3	7.62
PLXNB2	extracellular domain	7	3.61	25	0.5	5.26
PLXNB2	Adipocytes	9	2.91	25	0.5	3
PLXNB2	autocrine	8	3.4	25	0.5	5.6
PLXNB2	Paclitaxel	7	3.65	25	0	0
PLXNB2	CD31	6	4.38	25	0	0
PLXNB2	NOTCH1	5	5.29	25	0	0
PLXNB2	endostatin	5	5.46	25	0	0
PLXNB2	CD34	6	4.28	25	0	0
PLXNB2	collagen matrix	5	5.42	25	0	0
PLXNB2	CD14	6	4.5	25	0	0
PLXNB2	metalloprotease	6	4.21	25	0	0
PLXNB2	IL-1	9	2.84	25	0	0
PLXNB2	tenascin	5	5.04	25	0	0
PLXNB2	growth factor	11	2.29	25	0	0
PLXNB2	TIMP-2	5	5.09	25	0	0
PLXNB2	PC-3 cell line	5	5.16	25	0	0
PLXNB2	smooth muscle cell proliferation	5	5.03	25	0	0
PLXNB2	Hyperoxia	5	5.14	25	0	0
PLXNB2	fibronectin	8	3.2	25	0	0
PLXNB2	SMAD3	5	5.28	25	0	0
PLXNB2	RUNX2	5	5.21	25	0	0

PLXNB2	adherens junctions	5	5.18	25	0	0
PLXNB2	IL-4	8	3.34	25	0	0
PLXNB2	PEDF	4	6.45	25	0	0
PLXNB2	Laminin	7	3.73	25	0	0
PLXNB2	tsp-1	4	6.58	25	0	0
PLXNB2	Cytotoxicity	12	2.17	25	0	0
PLXNB2	Immunoglobulin G	10	2.66	25	0	0
PLXNB2	PTEN	6	4.28	25	0	0
PLXNB2	cell surface receptors	7	3.66	24	1	6.94
PLXNB2	Procollagen	5	4.84	24	0.5	7.25
PLXNB2	cell surface	10	2.51	24	0.5	1.38
PLXNB2	adipocyte differentiation	5	5.01	24	0	0
PLXNB2	glutathione S-transferase	8	3.09	24	0	0
PLXNB2	heparan sulfate proteoglycan	5	4.84	24	0	0
PLXNB2	TP53	6	4.14	24	0	0
PLXNB2	estrogen receptor	8	3.14	24	0	0
PLXNB2	Glomerulonephritis	6	4.21	24	0	0
PLXNB2	Normal skin	6	4.22	24	0	0
PLXNB2	chondrocyte differentiation	4	6.25	24	0	0
PLXNB2	thioredoxin	6	4.38	24	0	0
PLXNB2	umbilical vein	7	3.57	24	0	0
PLXNB2	caspase-3	8	3.08	24	0	0
PLXNB2	IGFBP-5	4	6.23	24	0	0
PLXNB2	extracellular matrix synthesis	4	6.67	24	0	0
PLXNB2	biglycan	4	6.29	24	0	0
PLXNB2	perlecan	4	6.23	24	0	0
PLXNB2	post-translational modifications	8	3.32	24	0	0
PLXNB2	anoikis	4	6.32	24	0	0
PLXNB2	cell-matrix adhesion	4	6.24	24	0	0
PLXNB2	reverse transcriptase	8	3.09	24	0	0
PLXNB2	endothelial cell proliferation	5	4.92	24	0	0
PLXNB2	CDC42	5	4.29	23	3.4	7.87
PLXNB2	HER-2 neu	6	4.06	23	1.3	4.93
PLXNB2	COL1A1	4	5.85	23	0	0
PLXNB2	ICAM-1	7	3.38	23	0	0
PLXNB2	hypoxia-inducible	6	4	23	0	0
PLXNB2	ZO-1	5	4.87	23	0	0
PLXNB2	HGF	6	3.87	23	0	0
PLXNB2	Leukemia	9	2.61	23	0	0
PLXNB2	glyceraldehyde-3-phosphate dehydrogenase	6	3.91	23	0	0
PLXNB2	Squamous cell carcinoma	8	2.85	23	0	0
PLXNB2	Bleomycin	6	4.09	23	0	0
PLXNB2	TYPE II COLLAGEN	5	4.77	23	0	0
PLXNB2	Brain tumors	7	3.44	23	0	0
PLXNB2	NSCLC	7	3.51	23	0	0
PLXNB2	endoplasmic reticulum	9	2.61	23	0	0
PLXNB2	plasminogen	6	3.96	23	0	0

PLXNB2	oral squamous cell carcinoma	5	4.91	23	0	0
PLXNB2	EGF	8	2.9	23	0	0
PLXNB2	embryonic stem cells	7	3.5	23	0	0
PLXNB2	Collagenase	6	3.88	23	0	0
PLXNB2	Antisense RNA	5	4.84	23	0	0
PLXNB2	collagen type I	5	4.62	23	0	0
PLXNB2	CYCLIN A	5	4.66	23	0	0
PLXNB2	embryonic development	8	2.87	22	0.5	4.75
PLXNB2	Hypertrophy	8	2.84	22	0	0
PLXNB2	Rho kinase	5	4.57	22	0	0
PLXNB2	pericytes	5	4.62	22	0	0
PLXNB2	ezrin	4	5.81	22	0	0
PLXNB2	kinase inhibitor	6	3.78	22	0	0
PLXNB2	adipogenesis	5	4.62	22	0	0
PLXNB2	jagged1	4	5.79	22	0	0
PLXNB2	proteolysis	8	2.84	22	0	0
PLXNB2	smooth muscle alpha-actin	4	6.18	22	0	0
PLXNB2	MMP-3	5	4.78	22	0	0
PLXNB2	c-Met	5	4.7	22	0	0
PLXNB2	AML	7	3.34	22	0	0
PLXNB2	Antisense Oligonucleotides	6	3.87	22	0	0
PLXNB2	connective tissue	9	2.6	22	0	0
PLXNB2	versican	4	5.76	22	0	0
PLXNB2	mesenchymal stem cells	6	3.83	22	0	0
PLXNB2	extracellular matrix proteins	6	3.71	22	0	0
PLXNB2	mitogen-activated protein kinase	9	2.59	22	0	0
PLXNB2	mineralization	6	3.79	22	0	0
PLXNB2	branching morphogenesis	4	5.78	22	0	0
PLXNB2	annexin II	4	4.94	21	0.5	5.7
PLXNB2	aryl hydrocarbon receptor	5	4.45	21	0	0
PLXNB2	cell death	9	2.25	21	0	0
PLXNB2	VEGFR-2	5	4.49	21	0	0
PLXNB2	ALK5	4	5.52	21	0	0
PLXNB2	CHRONIC PANCREATITIS	5	4.44	21	0	0
PLXNB2	metastatic disease	7	3.07	21	0	0
PLXNB2	Immunoglobulin	9	2.41	21	0	0
PLXNB2	synovial fibroblasts	4	5.57	21	0	0
PLXNB2	metastatic Melanoma	5	4.44	21	0	0
PLXNB2	heparin binding	5	4.44	21	0	0
PLXNB2	Disease Progression	8	2.76	21	0	0
PLXNB2	esophageal adenocarcinoma	4	5.87	21	0	0
PLXNB2	retinal pigment	5	4.39	21	0	0
PLXNB2	MKP-1	4	5.41	21	0	0
PLXNB2	WT1	5	4.34	21	0	0
PLXNB2	rheumatoid arthritis	8	2.7	21	0	0
PLXNB2	c-jun NH2-terminal kinase	4	5.37	21	0	0
PLXNB2	FGF receptor	5	4.62	21	0	0
PLXNB2	factor Xa	5	4.5	21	0	0

PLXNB2	tyrosine phosphorylation	7	3.15	21	0	0
PLXNB2	glomeruli	6	3.63	21	0	0
PLXNB2	BAX	7	3.23	21	0	0
PLXNB2	glomerulosclerosis	4	4.99	21	0	0
PLXNB2	tumor stroma	4	5.6	21	0	0
PLXNB2	tissue remodeling	5	4.37	21	0	0
PLXNB2	IGFBP-3	5	4.37	21	0	0
PLXNB2	progesterone receptor	6	3.72	21	0	0
PLXNB2	Heat Shock Protein	6	3.32	21	0	0
PLXNB2	hematopoietic stem cell	7	3.31	21	0	0
PLXNB2	FOCAL ADHESION KINASE	5	4.41	21	0	0
PLXNB2	neural tube	5	4.21	20	3.9	7.86
PLXNB2	axon guidance	4	4.98	20	1.8	8.66
PLXNB2	TGF-beta2	4	5.14	20	0	0
PLXNB2	U0126	5	4.09	20	0	0
PLXNB2	TIMP-3	4	5.27	20	0	0
PLXNB2	angiotensin II	7	2.96	20	0	0
PLXNB2	cytokeratin	6	3.64	20	0	0
PLXNB2	SMOOTH MUSCLE ACTIN	5	4.15	20	0	0
PLXNB2	Ureteral obstruction	4	5.05	20	0	0
PLXNB2	cell surface molecules	5	4.53	20	0	0
PLXNB2	fibrillar collagen	4	5.63	20	0	0
PLXNB2	aggrecan	4	5.12	20	0	0
PLXNB2	U87	4	5.49	20	0	0
PLXNB2	fluvastatin	4	5.4	20	0	0
PLXNB2	Thrombin	7	2.94	20	0	0
PLXNB2	homeostasis	9	2.26	20	0	0
PLXNB2	tight junctions	6	3.58	20	0	0
PLXNB2	Fibrosis	8	2.6	20	0	0
PLXNB2	PECAM-1	4	5.03	20	0	0
PLXNB2	INOS	7	2.96	20	0	0
PLXNB2	insulin-like growth factor binding protein	4	5.32	20	0	0
PLXNB2	PPARgamma	6	3.51	20	0	0
PLXNB2	platelets	8	2.65	20	0	0
PLXNB2	JAK1	4	5.38	20	0	0
PLXNB2	cell activation	6	3.48	20	0	0
PLXNB2	PKCalpha	5	4.38	20	0	0
PLXNB2	articular cartilage	5	4.19	20	0	0
PLXNB2	Phosphatidylserine	6	3.55	20	0	0
PLXNB2	elastin	5	4.17	20	0	0
PLXNB2	PCNA	7	3.03	20	0	0
PLXNB2	extracellular matrix remodeling	4	5.27	20	0	0
PLXNB2	breast cancer metastasis	4	5.64	20	0	0
PLXNB2	Metallothionein	5	4.14	20	0	0
PLXNB2	IL-2	8	2.73	20	0	0
PLXNB2	MMP-7	4	5.19	20	0	0
PLXNB2	CD9	4	5.35	20	0	0
PLXNB2	Proteoglycans	6	3.34	20	0	0

PLXNB2	RETINAL PIGMENT EPITHELIUM	5	4.12	20	0	0
PLXNB2	Bladder carcinoma	5	4.37	20	0	0
PLXNB2	IL-10	7	2.91	20	0	0

***No. shared rels:** Number of genes (out of 20 possible) consistently and specifically coexpressed with the target gene that are associated with this entity

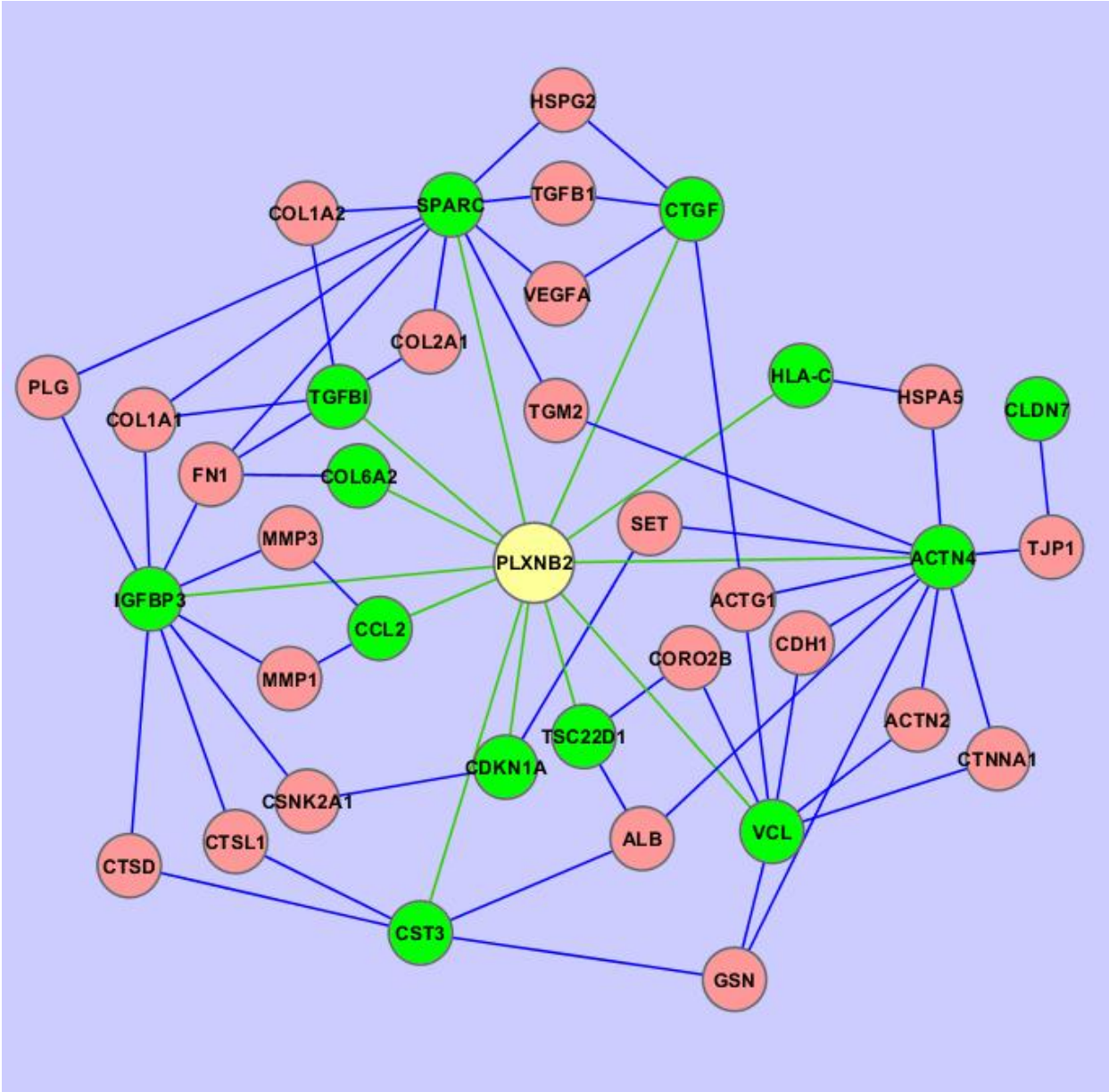
****Obs/Exp:** Statistical enrichment ratio—the number of observed commonalities to the number expected by chance alone, given a 20 identically connected genes within a random network of the same size

†Score: A priority score to rank the relative importance of the commonalities found

††Lit Str: If the predicted association is also a published association (i.e., apparently correct), Lit Str will be > 0. The higher this number, the more times the two terms are mentioned together in MEDLINE.

†††Lit MIM: Mutual information measure—a measure of how linked the two terms are in PubMed. The higher the value, the more the two terms are important to each other (e.g., insulin and glucose have a high MIM).

Supplementary Figure S5: Genes consistently coexpressed with PLXNB2 (green nodes) and the protein-protein interactions they share (pink)



ELTD1**Supplementary Table S6:** GAMMA-predicted genetic, phenotypic and disease associations for ELTD1

Gene	Predicted association	# Shared Rels*	Obs/Exp**	Scores†	Lit_Str††	Lit MIM††
ELTD1	blood vessel development	4	16.95	66	0	
ELTD1	TIE2	5	10.31	51	0	
ELTD1	GATA4	5	10.34	50	0	
ELTD1	VEGFR-3	4	11.08	44	0	
ELTD1	vasculogenesis	5	9.09	44	0	
ELTD1	CEREBRAL CAVERNOUS MALFORMATIONS	3	15.26	44	0	
ELTD1	endocan	3	15.15	43	2.6	16.37
ELTD1	EPHB4	3	14.7	43	0	
ELTD1	lymphangiogenesis	4	10.99	42	0	
ELTD1	VEGF-C	4	9.73	38	0	
ELTD1	NANOG	4	9.92	37	0	
ELTD1	CDH2	3	12.43	35	0	
ELTD1	endothelial cell differentiation	3	12.08	35	0	
ELTD1	ANG-2	4	8.67	34	0	
ELTD1	CD32	4	9	34	0	
ELTD1	claudin-5	3	11.46	34	0	
ELTD1	PROX1	3	11.8	34	0	
ELTD1	ECE-1	3	11.03	32	0	
ELTD1	angiogenic phenotype	3	10.74	31	0	
ELTD1	Flk-1	4	7.52	30	0	
ELTD1	Angiogenesis	9	3.39	29	0	
ELTD1	endoglin	4	7.59	29	0	
ELTD1	chordin	3	9.51	28	0	
ELTD1	VEGF-A	4	7.18	28	0	
ELTD1	ICAM-2	3	9.21	27	0	
ELTD1	VEGF	8	3.32	27	0	
ELTD1	MEF2C	3	9.09	26	0	
ELTD1	GatA	4	6.78	26	0	
ELTD1	regulation of angiogenesis	3	8.9	26	0	
ELTD1	Fibroblast growth factor	7	4.06	26	0	
ELTD1	PECAM-1	4	6.58	25	0	
ELTD1	FYN	4	6.07	23	0	
ELTD1	flt-1	4	5.82	23	0	
ELTD1	LFA-1	5	5.02	23	0	
ELTD1	embryonic stem cells	6	4.02	23	0	
ELTD1	PI 3-kinase	5	4.8	23	0	
ELTD1	E2F1	4	6.04	23	0	
ELTD1	NOTCH1	4	6.13	22	0	
ELTD1	Recombinase	4	5.83	22	0	

ELTD1	thrombospondin-1	4	5.76	22	0
ELTD1	cadherin	4	5.5	21	0
ELTD1	proinflammatory cytokines	8	2.56	20	0
ELTD1	IL-1	8	2.66	20	0
ELTD1	growth factor	10	2.11	20	0
ELTD1	IL-8	7	3.12	20	0
ELTD1	angiogenesis inhibitor	4	5.27	20	0
ELTD1	C1Q	4	5.28	20	0
ELTD1	Neovascularization	5	4.19	20	0
ELTD1	CD14	5	4.42	20	0
ELTD1	cell proliferation	10	2.11	20	0
ELTD1	hematopoiesis	5	3.89	19	0
ELTD1	DNA binding	8	2.49	19	0
ELTD1	embryonic development	7	2.93	19	0
ELTD1	CD11b CD18	4	5.05	19	0
ELTD1	cell surface	9	2.29	19	0
ELTD1	BMP-7	4	5.01	19	0
ELTD1	Vcam-1	5	3.95	19	0
ELTD1	umbilical vein	6	3.38	19	0
ELTD1	SHH	4	5.01	19	0
ELTD1	HGF	5	3.85	19	0
ELTD1	paracrine	6	3.2	18	0
ELTD1	von Willebrand factor	5	3.8	18	0
ELTD1	CD18	4	4.77	18	0
ELTD1	cell adhesion	7	2.69	18	0
ELTD1	JAK2	4	4.7	18	0
ELTD1	ICAM-1	6	3.1	17	0
ELTD1	protein tyrosine kinase	5	3.76	17	0
ELTD1	endothelin-1	5	3.51	17	0
ELTD1	Fc Receptors	4	4.42	17	0
ELTD1	eNOS	5	3.47	16	0
ELTD1	ischemia-reperfusion	5	3.36	16	0
ELTD1	protein kinase C	7	2.41	16	0
ELTD1	CXCR4	4	4.14	16	0
ELTD1	monocyte chemoattractant protein-1	5	3.2	15	0
ELTD1	Melanoma	6	2.43	15	0
ELTD1	Multiple Sclerosis	6	2.63	15	0
ELTD1	dendritic cell	6	2.61	15	0
ELTD1	IL-4	6	2.74	15	0
ELTD1	Lectin	6	2.7	15	0
ELTD1	IFN-gamma	7	2.29	15	0
ELTD1	IL-10	6	2.62	15	0
ELTD1	glial fibrillary acidic protein	5	3.14	15	0
ELTD1	extracellular domain	5	3.17	15	0
ELTD1	Adipocytes	6	2.34	14	0
ELTD1	inflammatory response	7	2.16	14	0
ELTD1	lysozyme	5	2.98	14	0
ELTD1	Protein Kinases	6	2.56	14	0

ELTD1	EGF	6	2.35	13	1	4.54
ELTD1	BFGF	5	2.82	13	0	
ELTD1	AML	5	2.84	13	0	
ELTD1	transcriptional regulation	6	2.36	13	0	
ELTD1	Alternative splicing	6	2.3	13	0	
ELTD1	cGMP	5	2.74	13	0	
ELTD1	IL-6	7	2.03	13	0	
ELTD1	estrogen receptor	6	2.42	13	0	
ELTD1	nuclear translocation	5	2.67	12	0	
ELTD1	adhesion molecules	5	2.41	12	0	
ELTD1	wound healing	5	2.5	12	0	
ELTD1	morphogenesis	5	2.62	12	0	
ELTD1	tyrosine phosphorylation	5	2.57	12	0	
ELTD1	mammary tumor	5	2.57	12	0	
ELTD1	glycosylation	5	2.41	12	0	
ELTD1	cytokine production	5	2.62	12	0	
ELTD1	innate immunity	5	2.61	12	0	
ELTD1	ERK1	5	2.52	12	0	
ELTD1	Glucocorticoids	6	2	11	0	
ELTD1	Alzheimer`s disease	6	2.04	11	0	
ELTD1	Glioma	5	2.2	10	1	9.01
ELTD1	white matter	5	2.26	10	0	
ELTD1	Astrocytes	5	2.11	10	0	
ELTD1	autocrine	5	2.3	10	0	
ELTD1	beta-catenin	5	2.17	10	0	
ELTD1	tyrosine kinase	5	2.06	10	0	
ELTD1	tumour necrosis	5	2.02	10	0	
ELTD1	TGF-BETA	5	2.03	10	0	
ELTD1	retinoic acid	5	2.24	10	0	
ELTD1	Phosphatidylinositol	5	2.07	10	0	

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Supplementary Figure S6: Genes consistently coexpressed with ELTD1 (green nodes) and the protein–protein interactions they share (pink)

