A

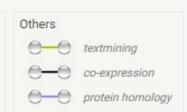
Edges:

Edges represent protein-protein associations

associations are meant to be specific and meaningful, i.e. proteins jointly contribute to a shared function; this does not necessarily mean they are physically binding each other.

Known Interactions from curated databases experimentally determined

Predicted Interactions gene neighborhood gene fusions gene co-occurrence



Your Input:

● Cd320

CD320 antigen; Receptor for transcobalamin saturated with cobalamin (TCbl). Plays an important role in cobalamin uptake. Plasma membrane protein that is expressed on follicular dendritic cells (FDC) and mediates interaction with germinal center B cells. Functions as costimulator to promote B cell responses to antigenic stimuli; promotes B cell differentiation and proliferation. Germinal center-B (GC-B) cells differentiate into memory B-cells and plasma cells (PC) through interaction with T-cells and follicular dendritic cells (FDC). CD320 augments the proliferation of PC precursors gen [...] (260 aa)

Neighborhood Gene Fusion	Coexpression	Experiments Databases	Textmining [Homology] Score
-----------------------------	--------------	--------------------------	-----------------------------------

Predicted Functional Partners:

Tcn2	Transcobalamin-2; Primary vitamin B12-binding and transport protein. Delivers cobalamin to cells (430 aa)		• •	0.990
Bckdk	[3-methyl-2-oxobutanoate dehydrogenase [lipoamide]] kinase, mitochondrial; Catalyzes the phosphorylation and inactiva		•	0.723
⊜ Lmbrd1	Probable lysosomal cobalamin transporter; Probable lysosomal cobalamin transporter. Required to export cobalamin fr		•	0.647
● Mtr	Methionine synthase; Catalyzes the transfer of a methyl group from methyl- cobalamin to homocysteine, yielding enzym		•	0.644
⊜ Mmd	Monocyte to macrophage differentiation factor; Involved in the dynamics of lysosomal membranes associated with mic		•	0.623
gsf8	Immunoglobulin superfamily member 8; May play a key role in diverse functions ascribed to CD81 and CD9 such as ooc		•	0.615
Abcd4	ATP-binding cassette sub-family D member 4; May be involved in intracellular processing of vitamin B12 (cobalamin). C		•	0.612
Mmadhc	Methylmalonic aciduria and homocystinuria type D homolog, mitochondrial; Involved in cobalamin metabolism. Plays a		•	0.607
Acvr1	Activin receptor type-1; On ligand binding, forms a receptor complex consisting of two type II and two type I transmembr	•		0.594
Cubn	Cubilin; Cotransporter which plays a role in lipoprotein, vitamin and iron metabolism, by facilitating their uptake. Binds to		•	0.590

Your Current Organism:

Mus musculus

NCBI taxonomy Id: 10090

Other names: LK3 transgenic mice, M. musculus, Mus muscaris, Mus musculus, Mus sp. 129SV, house mouse, mouse, nude mice, transgenic mice

В

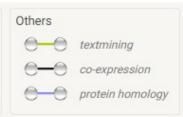
Edges represent protein-protein associations

associations are meant to be specific and meaningful, i.e. proteins jointly contribute to a shared function; this does not necessarily mean they are physically binding each other.



experimentally determined

Predicted Interactions gene neighborhood gene fusions gene co-occurrence



• 0.929

Your Input:

Acvr1

Activin receptor type-1; On ligand binding, forms a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate SMAD transcriptional regulators. Receptor for activin. May be involved in left-right pattern formation during embryogenesis (509 aa)

Neighborhood Gene Fusion Cooccurence Coexpression Experiments Databases Textmining

Predicted Functional Partners:

Bmp4 Bone morphogenetic protein 4; Induces cartilage and bone formation. Acts in concert with PTHLH/PTHRP to stimulate du... 0.983 Smad9 Mothers against decapentaplegic homolog 9; Transcriptional modulator activated by BMP (bone morphogenetic proteins)... 0.973 Bmp2 Bone morphogenetic protein 2; Induces cartilage and bone formation. Stimulates the differentiation of myoblasts into ost... 0.969 Smad5 Mothers against decapentaplegic homolog 5; Transcriptional modulator activated by BMP (bone morphogenetic proteins)... 0.959 Smad1 Mothers against decapentaplegic homolog 1; Transcriptional modulator activated by BMP (bone morphogenetic proteins). 0.959 Smad2 Mothers against decapentaplegic homolog 2; Receptor-regulated SMAD (R-SMAD) that is an intracellular signal transduce. 0.956 Bmpr2 Bone morphogenetic protein receptor type-2; On ligand binding, forms a receptor complex consisting of two type II and tw... 0.953 Smad3 Mothers against decapentaplegic homolog 3; Receptor-regulated SMAD (R-SMAD) that is an intracellular signal transduce... 0.935 Acvr2a Activin receptor type-2A; On ligand binding, forms a receptor complex consisting of two type II and two type I transmembr... 0.929

Your Current Organism:

Mus musculus

NCBI taxonomy Id: 10090

Other names: LK3 transgenic mice, M. musculus, Mus muscaris, Mus musculus, Mus sp. 129SV, house mouse, mouse, nude mice, transgenic mice

Acvr2b Activin receptor type-2B; Transmembrane serine/threonine kinase activin type-2 receptor forming an activin receptor com...