ACV1B Antibody

PRODUCT OVERVIEW

Product Name	ACV1B, Antibody
Full Product Name	ACV1B Antibody
Product Gene Name	anti-ACV1B antibody
Product Synonym Names	ACTR-IB; ACV1B; ACVR1B; ACVRLK4; Activin receptor-like kinase 4; EC 2.7.1.37; EC 2.7.11.30; KIR2; SKR2; Serine/threonine-protein kinase receptor R2 precursor
Species Reactivity	Human, Mouse, Rat
Form/Format	In phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Immunogen affinity purified
Specificity	ACV1B Antibody detects endogenous levels of total ACV1B
Preparation and Storage	Store at-20 degree C for 1 year
Molecular Weight	56 kDa
OMIM	601300
3D Structure	ModBase 3D Structure for P36896
Immunogen	A synthesized peptide derived from human ACV1B
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-ACV1B antibody	Western Blot (WB), Immunofluorescence (IF)
Application Notes for anti-ACV1B antibody	WB: 1:500-1:2000 IF: 1:100-1:500,
Related Product Information for anti-ACV1B antibody	Transmembrane serine/threonine kinase activin type-1 receptor forming an activin receptor complex with activin receptor type-2 (ACVR2A or ACVR2B). Transduces the activin signal from the cell surface to the cytoplasm and is thus regulating a many physiological and pathological processes including neuronal differentiation and neuronal survival, hair follicle development and cycling, FSH production by the pituitary gland, wound healing, extracellular matrix production, immunosuppression and carcinogenesis. Activin is also thought to have a paracrine or autocrine role in follicular development in the ovary.
Other Notes	Small volumes of anti-ACV1B antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ACV1B purchase	MBS8512123 is an antibody targeting ACV1B. Also known as ACV1B Antibody. Reactive in Human, Mouse, Rat.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACV1B. It may not necessarily be applicable to this product.

NCBI GI #	4757720
NCBI GeneID	91
NCBI Accession #	NP_004293.1
UniProt Primary Accession #	P36896

UniProt Secondary Accession #	Q15479; Q15480; Q15481; Q15482; B7Z5L8; B7Z5W5
UniProt Related Accession #	P36896
GenBank Nucleotide #	NM_004302.4
NCBI Official Full Name	activin receptor type-1B isoform a
NCBI Official Synonym Full Names	activin A receptor type 1B
NCBI Official Symbol	ACVR1B
NCBI Official Synonym Symbols	ALK4; SKR2; ACTRIB; ACVRLK4
UniProt Protein Name	Activin receptor type-1B
UniProt Synonym Protein Names	Activin receptor type IB; ACTR-IB; Activin receptor-like kinase 4; ALK-4; Serine/threonine-protein kinase receptor R2; SKR2
UniProt Gene Name	ACVR1B
UniProt Synonym Gene Names	ACVRLK4; ALK4; ACTR-IB; ALK-4; SKR2
NCBI Protein Information	activin receptor type-1B
NCBI Summary for ACV1B	This gene encodes an activin A type IB receptor. Activins are dimeric growth and differentiation factors which belong to the transforming growth factor-beta (TGF-beta) superfamily of structurally related signaling proteins. Activins signal through a heteromeric complex of receptor serine kinases which include at least two type I and two type II receptors. This protein is a type I receptor which is essential for signaling. Mutations in this gene are associated with pituitary tumors. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Jun 2010]
UniProt Comments for ACV1B	Transmembrane serine/threonine kinase activin type-1 receptor forming an activin receptor complex with activin receptor type-2 (ACVR2A or ACVR2B). Transduces the activin signal from the cell surface to the cytoplasm and is thus regulating a many physiological and pathological processes including neuronal differentiation and neuronal survival, hair follicle development and cycling, FSH production by the pituitary gland, wound healing, extracellular matrix production, immunosuppression and carcinogenesis. Activin is also thought to have a paracrine or autocrine role in follicular development in the ovary. Within the receptor complex, type-2 receptors (ACVR2A and/or ACVR2B) act as a primary activin receptors whereas the type-1 receptors like ACVR1B act as downstream transducers of activin signals. Activin binds to type-2 receptor at the plasma membrane and activates its serine-threonine kinase. The activated receptor type-2 then phosphorylates and activates the type-1 receptor such as ACVR1B. Once activated, the type-1 receptor binds and phosphorylates the SMAD proteins SMAD2 and SMAD3, on serine residues of the C-terminal tail. Soon after their association with the activin receptor and subsequent phosphorylation, SMAD2 and SMAD3 are released into the cytoplasm where they interact with the common partner SMAD4. This SMAD complex translocates into the nucleus where it mediates activin-induced transcription. Inhibitory SMAD7, which is recruited to ACVR1B through FKBP1A, can prevent the association of SMAD2 and SMAD3 with the activin receptor complex, thereby blocking the activin signal. Activin signal transduction is also antagonized by the binding to the receptor of inhibin-B via the IGSF1 inhibin coreceptor. ACVR1B also phosphorylates TDP2.
Research Articles on ACV1B	**1.** Results showed that ACVR1B expression is upregulated during latent infection with a miR-UL148D deletion virus. Data indicates miR-UL148D inhibits ACVR1B expression in latently infected cells to limit proinflammatory cytokine secretion.
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