ACVRL1 Mouse Recombinant Protein

PRODUCT OVERVIEW

Product Name	ACVRL1, Recombinant Protein
Full Product Name	Recombinant Mouse ACVRL1 Protein, N-SUMO & C-His
Product Gene Name	ACVRL1 recombinant protein
Product Synonym Names	Serine/threonine-protein kinase receptor R3; SKR3; 2.7.11.30; Activin receptor-like kinase 1; ALK-1; TGF-B superfamily receptor type I; TSR-I; Acvrl1; Acvrlk1; Alk-1
Host	E coli
Form/Format	Lyophilized from a solution in PBS pH7.4, 0.02% NLS, 1mM EDTA, 4% Trehalose, 1% Mannitol.
Purity/Purification	>90% as determined by SDS-PAGE
Preparation and Storage	Use a manual defrost freezer and avoid repeated freeze thaw cycles. Store at 2 to 8 degree C for one week. Store at -20 degree C for twelve months from the date of receipt.
Molecular Weight	56,519 Da
Sequence Positions	Asp23-Pro119
3D Structure	ModBase 3D Structure for Q61288
Species	Mouse
Reconstitution	Reconstitute in sterile water for a stock solution.
Product Categories/Family for ACVRL1 recombinant protein	Recombinant Proteins
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for ACVRL1 recombinant protein	SDS-PAGE (SDS), Western Blot (WB), ELISA (EIA), Immunogen
Related Product Information for ACVRL1 recombinant protein	MBS1578711 is a recombinant protein targeting ACVRL1. Also known as Recombinant Mouse ACVRL1 Protein, N-SUMO & C-His. Host: E coli.
Other Notes	Small volumes of ACVRL1 recombinant protein 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACVRL1. It may not necessarily be applicable to this product.

NCBI GI #	471015970
NCBI GeneID	11482
NCBI Accession #	NP_001264186.1
UniProt Primary Accession #	Q61288
UniProt Secondary Accession #	Q61289; Q91YR0
UniProt Related Accession #	Q61288

GenBank Nucleotide #	NM_001277257.1
NCBI Official Full Name	serine/threonine-protein kinase receptor R3 isoform a
NCBI Official Synonym Full Names	activin A receptor, type II-like 1
NCBI Official Symbol	Acvrl1
NCBI Official Synonym Symbols	Alk1; Acvrlk1; AI115505; AI427544
UniProt Protein Name	Serine/threonine-protein kinase receptor R3
UniProt Synonym Protein Names	Activin receptor-like kinase 1; ALK-1; TGF-B superfamily receptor type I; TSR-I
Protein Family	Serine/threonine-protein kinase receptor
UniProt Gene Name	Acvrl1
UniProt Synonym Gene Names	Acvrlk1; Alk-1; SKR3; ALK-1; TSR-I
UniProt Entry Name	ACVL1_MOUSE
NCBI Protein Information	serine/threonine-protein kinase receptor R3
UniProt Comments for ACVRL1	ALK1: a kinase of the STKR family. A type I cell-surface receptor for the TGF-beta superfamily of ligands including Activin A. Highly expressed in human placenta and lung. Deficiency causes hemorrhagic telangiectasia type 2 also known as Rendu-Osler-Weber syndrome 2. Protein type: EC 2.7.11.30; Protein kinase, TKL; Membrane protein, integral; Protein kinase, Ser/Thr (receptor); Kinase, protein; TKL group; STKR family; Type1 subfamily Cellular Component: cell soma; cell surface; dendrite; integral to plasma membrane; plasma membrane Molecular Function: activin binding; activin receptor activity, type I; ATP binding; protein binding; protein kinase binding; protein serine/threonine kinase activity; receptor signaling protein serine/threonine kinase activity; SMAD binding; transforming growth factor beta binding; transforming growth factor beta receptor activity; transforming growth factor beta receptor activity, type I Biological Process: angiogenesis; blood circulation; blood vessel morphogenesis; blood vessel remodeling; BMP signaling pathway; endothelial cell activation; in utero embryonic development; lymphangiogenesis; negative regulation of blood vessel endothelial cell migration; negative regulation of cell adhesion; negative regulation of cell growth; negative regulation of cell migration; negative regulation of cell proliferation; negative regulation of endothelial cell differentiation; negative regulation of endothelial cell proliferation; negative regulation of focal adhesion formation; positive regulation of angiogenesis; positive regulation of BMP signaling pathway; positive regulation of endothelial cell differentiation; positive regulation of endothelial cell proliferation; positive regulation of transcription from RNA polymerase II promoter; positive regulation of transcription, DNA-dependent; protein amino acid phosphorylation; protein heterooligomerization; regulation of blood pressure; regulation of transcription, DNA-dependent; signal transduction; transforming growth factor beta receptor signaling pathway; wound healing, spreading of epidermal cells
Research Articles on ACVRL1	**1.** In vascular sprouting, neuropilin-1 suppresses the stalk-cell phenotype by limiting Smad2/3 activation through Alk1 and Alk5. Notch downregulates Nrp1, thus relieving the inhibition of Alk1 and Alk5, thereby driving stalk-cell behaviour.
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