

Recombinant Human ACVRL1, Fc-tagged therapeutic protein(Activin receptor-like kinase 1 (ALK1) receptor antagonist)

Cat. No. ACVRL1-P010H Lot. No. (See product label)

SPECIFICATION

Product Overview

A soluble fusion protein containing the extracellular domain of activin receptor-like kinase-1 (ALK1) that binds to the TGF- β superfamily members BMP9 and BMP10 fused to a human Fc domain (ALK1-Fc fusion protein), with potential antiangiogenic and antineoplastic activities. ALK1 is expressed on activated blood vessel cells and plays critical roles in the formation and maturation of blood vessels. Upon administration, the protein binds to various ALK1 ligands, preventing activation of tumor cell ALK1 receptors and so inhibiting the ALK1 signaling pathway; growth factor-induced angiogenesis is thus inhibited, which may result in the inhibition of tumor cell proliferation and tumor cell death. The Fc moiety of this fusion protein mediates clearance of ligand-fusion protein complexes by the reticuloendothelial system.

Species

Human

Description

ALK1 is a type I cell surface receptor with serine/threonine kinase activity that mediates signaling by members of the transforming growth factor-beta (TGFbeta) superfamily and plays a key role in angiogenesis; ligands for this receptor include TGFbeta1 and TGFbeta2.

Endotoxin

< 0.1 EU per μ g of the protein

Purity

>95%

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GENE INFORMATION

Gene Name	ACVRL1 activin A receptor type II-like 1 [Homo sapiens]
Official Symbol	ACVRL1
Synonyms	ACVRL1; activin A receptor type II-like 1; ACVRLK1, ORW2; serine/threonine-protein kinase receptor R3; ALK1; HHT; HHT2; activin receptor-like kinase 1; TGF-B superfamily receptor type I; activin A receptor, type II-like kinase 1; ORW2; SKR3; ALK-1; TSR-I; ACVRLK1;
Gene ID	94
mRNA Refseq	NM_000020
Protein Refseq	NP_000011
MIM	601284
UniProt ID	P37023
Chromosome Location	12q11-q14
Pathway	ALK1 pathway, organism-specific biosystem; ALK1 signaling events, organism-specific biosystem; Id Signaling Pathway, organism-specific biosystem; TGF-beta Receptor Signaling Pathway, organism-specific biosystem;
Function	ATP binding; SMAD binding; activin binding; activin receptor activity, type I; contributes_to activin receptor activity, type I; metal ion binding; nucleotide binding; protein binding; protein serine/threonine kinase activity; receptor activity; receptor

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signaling protein serine/threonine kinase activity; transforming growth factor beta binding; contributes_to transforming growth factor beta receptor activity, type I; transforming growth factor beta-activated receptor activity; transmembrane receptor protein serine/threonine kinase activity;

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