

Recombinant Human ACVR2B, Fc-tagged therapeutic protein(Luspatercept)

Cat. No. ACVR2B-P014H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Human activin receptor type IIB, Fc-tagged therapeutic protein is an investigational therapeutic protein that increases red blood cell (RBC) levels by targeting molecules in the TGF- β superfamily. It contains a modified activin receptor type IIB linked to the Fc protein of human immunoglobulin 1 (IgG1) that acts as a ligand trap for members in the Transforming Growth Factor-Beta (TGF- β) superfamily involved in the late stages of erythropoiesis (red blood cell production). It regulates late-stage erythrocyte (red blood cell) precursor cell differentiation and maturation. This mechanism of action is distinct from that of erythropoietin (EPO), which stimulates the proliferation of early-stage erythrocyte precursor cells.

Species

Human

Source

CHO

Description

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 (I and IB) and two type II (II and IIB) receptors. These receptors are all transmembrane proteins, composed of a ligand-binding extracellular domain with cysteine-rich region, a transmembrane domain, and a cytoplasmic domain with predicted serine/threonine specificity. Type I receptors are essential for signaling; and type II receptors are required for binding ligands and for expression of type I receptors. Type I and II receptors form a stable complex after

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ligand binding, resulting in phosphorylation of type I receptors by type II receptors. Type II receptors are considered to be constitutively active kinases. This gene encodes activin A type IIB receptor, which displays a 3- to 4-fold higher affinity for the ligand than activin A type II receptor.

Endotoxin	< 0.1 EU per µg of the protein
Purity	>96%
Alias	ACVR2B; ActR IIB; HTX4; ACTRIIB; ActR-IIB; Luspatercept

GENE INFORMATION

Gene Name	ACVR2B activin A receptor, type IIB [Homo sapiens]
Official Symbol	ACVR2B
Synonyms	ACVR2B; activin A receptor, type IIB; activin receptor type-2B; ActR IIB; HTX4; ACTRIIB; ActR-IIB;
Gene ID	93
mRNA Refseq	NM_001106
Protein Refseq	NP_001097
MIM	602730
UniProt ID	Q13705
Chromosome	3p22

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Location	
Pathway	Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Developmental Biology, organism-specific biosystem; Regulation of Signaling by NODAL, organism-specific biosystem; Signal Transduction, organism-specific biosystem; Signaling by BMP, organism-specific biosystem; Signaling by NODAL, organism-specific biosystem;
Function	ATP binding; activin binding; activin receptor activity, type II; contributes_to activin receptor activity, type II; growth factor binding; inhibin beta-A binding; inhibin beta-B binding; metal ion binding; nucleotide binding; protein binding; protein serine/threonine kinase activity; protein serine/threonine kinase activity; protein serine/threonine/tyrosine kinase activity; receptor activity; receptor signaling protein serine/threonine kinase activity; transforming growth factor beta-activated receptor activity; transmembrane receptor protein serine/threonine kinase activity;