

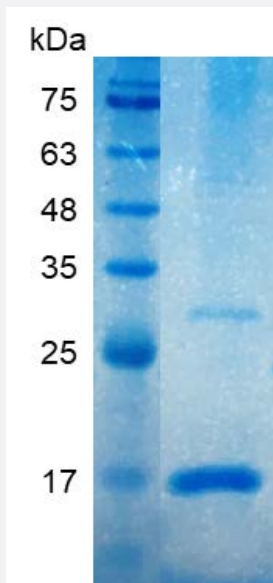
Bioactive

# ACVR1B (Human) Recombinant Protein

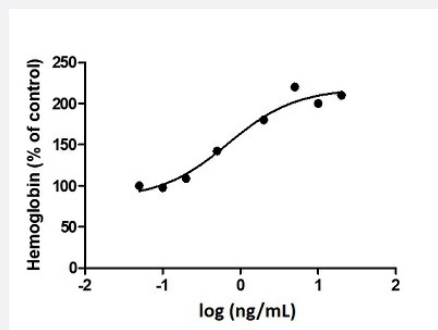
Catalog # P7842

Size 20 ug

## Applications



SDS-PAGE analysis of ACVR1B (Human) Recombinant Protein.



## Result of activity analysis

Result of activity analysis

## Specification

### Product Description

Human ACVR1B recombinant protein with polyhistidine tag at the C-terminus expressed in *Escherichia coli*.

### Sequence

MGLECDGRTNLCCRQQFFIDFRLIGWNDWIAPTGYGNYCEGSCPAYLAGVPGSASSFHTAVVNQYRMRLNPGTVNSCCIPTKLSTMSMLYFDDEYNIVKRDPNMMIVEECGCA with polyhistidine tag at the C-terminus.

### Host

Escherichia coli

Form	Lyophilized
Preparation Method	<i>Escherichia coli</i> expression system
Purification	Ni-NTA chromatography
Purity	> 98% as determined by SDS-PAGE.
Endotoxin Level	< 0.1 EU/ ug of protein by the LAL method.
Activity	ED <sub>50</sub> < 0.7 ng/mL, Measured by the induction of induce hemoglobin expression in K562 cells. The specific activity of recombinant human Activin B is > 1.5 x 10 <sup>6</sup> IU/mg.
Quality Control Testing	SDS-PAGE Stained with Coomassie Blue. SDS-PAGE analysis of ACVR1B (Human) Recombinant Protein.
Recommend Usage	Biological Activity SDS-PAGE The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from a solution containing 1X PBS, pH 8.0. Reconstitute the lyophilized powder in ddH <sub>2</sub> O to 100 ug/mL.
Storage Instruction	Lyophilized protein should be stored at -20°C. Protein aliquots should be stored at -20°C to -80°C.
Note	Result of activity analysis Result of activity analysis

## Applications

- Functional Study
- SDS-PAGE

## Gene Info — ACVR1B

Entrez GeneID	<a href="#">91</a>
Gene Name	ACVR1B
Gene Alias	ACTRIB, ACVRLK4, ALK4, SKR2
Gene Description	activin A receptor, type IB
Omim ID	<a href="#">601300</a>

## Gene Ontology

[Hyperlink](#)

## Gene Summary

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 a 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 ligand binding, resulting in phosphorylation of type I receptors by type II receptors. This gene encodes activin A type IB receptor, composed of 11 exons. Alternative splicing and alternative polyadenylation result in 3 fully described transcript variants. The mRNA expression of variants 1, 2, and 3 is confirmed, and a potential fourth variant contains an alternative exon 8 and lacks exons 9 through 11, but its mRNA expression has not been confirmed. [provided by RefSeq]

## Other Designations

activin A receptor, type II-like kinase 4|activin A type IB receptor|activin receptor-like kinase 4|serine(threonine) protein kinase receptor R2

## Pathway

- [Adherens junction](#)
- [Chronic myeloid leukemia](#)
- [Colorectal cancer](#)
- [Cytokine-cytokine receptor interaction](#)
- [Endocytosis](#)
- [MAPK signaling pathway](#)
- [Pancreatic cancer](#)
- [Pathways in cancer](#)
- [TGF-beta signaling pathway](#)

## Disease

- [Genetic Predisposition to Disease](#)
- [Head and Neck Neoplasms](#)
- [Neoplasm Recurrence](#)

- [Neoplasms](#)
- [Obesity](#)
- [Ovarian Failure](#)
- [Polycystic Ovary Syndrome](#)
- [Puberty](#)
- [Schizophrenia](#)
- [Thrombophilia](#)
- [Tobacco Use Disorder](#)