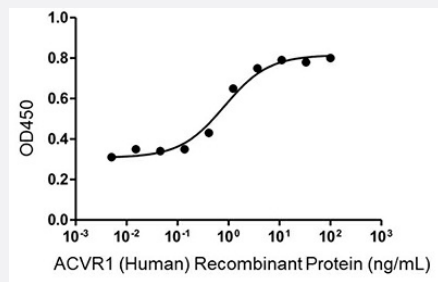


Bioactive

ACVR1 (Human) Recombinant Protein

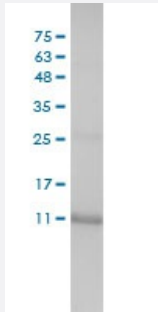
Catalog # P7006 Size 100 ug

Applications



Functional Study

The ED₅₀ for this effect is <0.85 ng/mL, measured by the induction of hemoglobin expression in K562 cells.



Specification

Product Description	Human ACVR1 recombinant protein with polyhistidine tag at the C-terminus expressed in <i>Escherichia coli</i> .
Sequence	MGLECDGKVNICKKKQFFVSFKDIGWNDWIAPSGYHANYCEGECPSHIAGTSGSSLSFHSTVINH YRMRGHSPFANLKSCCVPTKLRPMSMLYDDGQNIKKDIQNMIVEECGCS
Host	<i>Escherichia coli</i>
Form	Lyophilized
Preparation Method	<i>Escherichia coli</i> expression system

Purification	Ni-NTA chromatography
Purity	> 95% by SDS-PAGE
Endotoxin Level	< 0.1 EU per 1 ug of the protein by the LAL method.
Activity	Measured by the induction of hemoglobin expression in K562 cells. The ED 50 for this effect is < 0.8 5 ng/mL. The specific activity of recombinant human Activin A is approximately > 1.4 x 10 ³ IU/mg.
Quality Control Testing	SDS-PAGE Stained with Coomassie Blue
Recommend Usage	SDS-PAGE The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from 0.1% sarkosyl, PBS, pH 8.0.
Storage Instruction	Store at -20°C, lyophilized protein is stable for 1 year. After reconstitution with deionized water, store at -20 to -80°C. Aliquot to avoid repeated freezing and thawing.

Applications

- Functional Study

The ED₅₀ for this effect is <0.85 ng/mL, measured by the induction of hemoglobin expression in K562 cells.

- SDS-PAGE

Gene Info — ACVR1

Entrez GeneID	90
Gene Name	ACVR1
Gene Alias	ACTRI, ACVR1A, ACVRLK2, ALK2, FOP, SKR1, TSRI
Gene Description	activin A receptor, type I
Omim ID	102576 135100
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 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 I receptor which signals a particular transcriptional response in concert with activin type II receptors. Mutations in this gene are associated with fibrodysplasia ossificans progressive. [provided by RefSeq]

Other Designations

TGF-B superfamily receptor type II|activin A receptor, type II-like kinase 2|activin A type I receptor|hydroxyalkyl-protein kinase|serine/threonine-protein kinase receptor R1

Pathway

- [Cytokine-cytokine receptor interaction](#)
- [TGF-beta signaling pathway](#)

Disease

- [Abortion](#)
- [Breast Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Infertility](#)
- [Intracranial Aneurysm](#)
- [Narcolepsy](#)
- [Neoplasms](#)
- [Obesity](#)
- [Ovarian cancer](#)
- [Ovarian Failure](#)
- [Ovarian Neoplasms](#)
- [Polycystic Ovary Syndrome](#)

- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Puberty](#)
- [Stroke](#)
- [Thrombophilia](#)
- [Tobacco Use Disorder](#)