

ACVR2B active protein

ACVR2B Protein, Human, Recombinant (ECD, hFc Tag)

CATALOG #
AAA257849

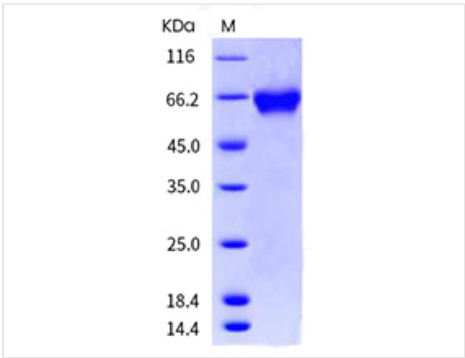
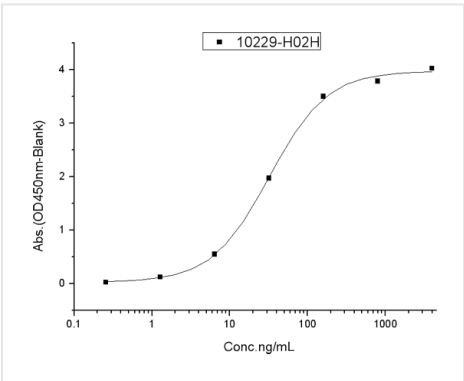
HOST
HEK293 Cells

PRODUCT SYNONYMS

ACVR2B; ACVR2B Protein; Human; Recombinant (ECD; hFc Tag); Human ACVR2B/ActivinR-IIIB Protein (ECD; Fc Tag); Activin RIIB Protein; ActR-IIIB Protein; ACTRIIB Protein; HTX4 Protein; activin A receptor; type IIB; ACVR2B active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>97% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Thr13 4
Species	Human
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Ser 19
Tag	C-human IgG1-Fc
Protein Construction	A DNA sequence encoding the N-terminal segment (Met 1-Thr 134) from the extracellular domain of human ACVR2B (NP_001097.2) was expressed with the fused human IgG1 Fc region at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Activity	1. Measured by its ability to neutralize Activin-mediated inhibition on MPC11 cell proliferation. The ED50 for this effect is typically 0.02-0.1ug/mL in the presence of 10ng/mL recombinant Activin A. 2. Measured by its binding ability in a functional ELISA. Immobilized Inhibin Human, Mouse, Rat, Cynomolgus, Rhesus Inhibin beta A/Activin A at 2ug/ml (100uL/well) can bind Human ACVR2B hFc. The EC50 of Human ACVR2B hFc is 12-60ng/mL.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.



SDS-PAGE

Application Data
Measured by its binding ability in a functional ELISA. Immobilized Inhibin Human, Mouse, Rat, Cynomolgus, Rhesus Inhibin beta A/Activin A at 2 ug/ml (100 ul/well) can bind Human ACVR2B hFc, the EC50 of Human ACVR2B hFc is 12-60 ng/mL.

ADDITIONAL INFORMATION

Related Product Information for ACVR2B active protein

Background: ACVR2A and ACVR2B are two activin type II receptors. ACVR2B is integral to the activin and myostatin signaling pathway. Ligands such as activin and myostatin bind to ACVR2A and ACVR2B. Myostatin, a negative regulator of skeletal muscle growth, is regarded as a potential therapeutic target and binds to ACVR2B effectively, and to a lesser extent, to ACVR2A. The structure of human ACVR2B kinase domain in complex with adenine establishes the conserved bilobal architecture consistent with all other catalytic kinase domains. Haplotype structure at the ACVR2B and follistatin loci may contribute to interindividual variation in skeletal muscle mass and strength. Defects in ACVR2B are a cause of left-right axis malformations.

References

Kosaki R, et al. (1999) Left-right axis malformations associated with mutations in ACVR2B, the gene for human activin receptor type IIB. *Am J Med Genet.* 82(1):70-6. Dupont S, et al. (2001) No evidence for linkage or for diabetes-associated mutations in the activin type 2B receptor gene (ACVR2B) in French patients with mature-onset diabetes of the young or type 2 diabetes. *Diabetes* 50(5):1219-21. Albertson RC, et al. (2005) Zebrafish *acvr2a* and *acvr2b* exhibit distinct roles in craniofacial development. *Developmental dynamics* 233(4): 1405-18. Walsh S, et al. (2007) Activin-type II receptor B (ACVR2B) and follistatin haplotype associations with muscle mass and strength in humans. *J Appl Physiol.* 102(6):2142-8.

NCBI AND UNIPROT INFORMATION

NCBI GI #	116734708
NCBI GeneID	93
NCBI Accession #	NP_001097.2
NCBI GenBank Nucleotide #	NM_001106.3
UniProt Accession #	Q13705; Q4VAV0
Molecular Weight	– Da
NCBI Official Full Name	activin receptor type-2B
NCBI Official Synonym Full Names	activin A receptor type 2B
NCBI Official Symbol	ACVR2B
NCBI Official Synonym Symbols	HTX4; ACTRIIB; ActR-IIB
NCBI Protein Information	activin receptor type-2B
UniProt Protein Name	Activin receptor type-2B
UniProt Gene Name	ACVR2B

UniProt Synonym Gene Names	ACTR-IIB
UniProt Entry Name	AVR2B_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/hek293-cells-active-protein/acvr2b/257849>