

ACVR2B active protein

ACVR2B Protein, Cynomolgus, Recombinant (His Tag)

CATALOG #
AAA258265

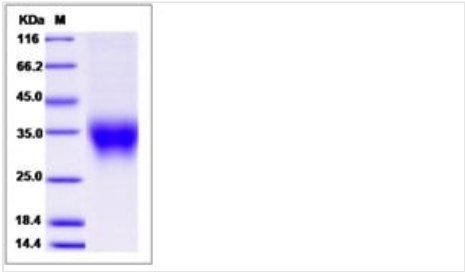
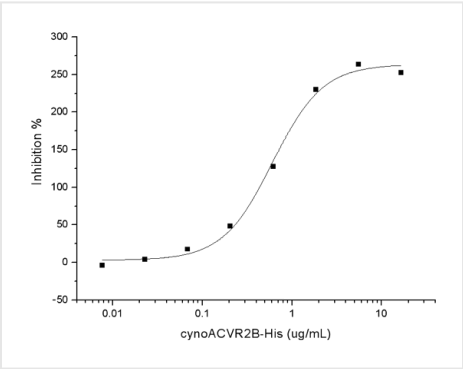
HOST
HEK293 Cells

PRODUCT SYNONYMS

ACVR2B; ACVR2B Protein; Cynomolgus; Recombinant (His Tag); Cynomolgus ACVR2B/ACTRIIB Protein (His Tag); activin A receptor; type IIB; ACVR2B active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>95% 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	Ser28-Thr1 43
Species	Cynomolgus
Activity	Measured by its ability to neutralize Activin-mediated inhibition on MPC11 cell proliferation. The ED50 for this effect is typically 0.2-1ug/mL in the presence of 10ng/mL recombinant Activin A.
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Ser 28
Tag	C-His
Protein Construction	A DNA sequence encoding the cynomolgus ACVR2B (Ser28-Thr143) was expressed with a polyhistidine tag 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.
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 ability to neutralize Activin-mediated inhibition on MPC11 cell proliferation.
The ED50 for this effect is typically 0.2-1 ug/mL in the presence of 10 ng/mL recombinant Activin A.

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

Molecular Weight	The recombinant cynomolgus ACVR2B comprises 127 amino acids and has a calculated molecular mass of 14.8kDa. The apparent molecular mass of it is approximately 33-36kDa in SDS-PAGE under reducing conditions.
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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.