

Recombinant Human ACVR2B/ActivinR-IIB Protein (His Tag)

Catalog No. PKSH031742

Note: Centrifuge before opening to ensure complete recovery of vial contents.

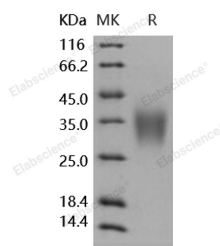
Description

Synonyms	Activin Receptor Type-2B;Activin Receptor Type IIB;ACTR-IIB;ACVR2B;Bone Morphogenetic Protein Receptor Type-2;BMP Type-2 Receptor;BMPR-4;Bone Morphogenetic Protein Receptor Type II;BMP Type II Receptor
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Thr 134
Accession	NP_001097.2
Calculated Molecular Weight	15 kDa
Observed molecular weight	33-38 kDa
Tag	C-His
Bioactivity	1. Measured by its ability to bind biotinylated Human INHBA-his and Mouse INHBA-his in functional ELISA. 2. Measured by its ability to neutralize Activin-mediated inhibition on MPC11 cell proliferation. The ED50 for this effect is typically 0.3-2 µg/mL in the presence of 10 ng/mL recombinant Activin A.

Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01 % Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

For Research Use Only

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.