

Recombinant Human Activin RIIB/ACVR2B Protein

Catalog No.: RP00153 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	93	Q13705

Tags

C-hFc&His

Synonyms

ACVR2B;ACTRIIB;ActR-IIB;HTX4

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

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. Type II receptors are considered to be constitutively active kinases. This gene encodes activin A type IIB receptor, which displays a 3- to 4-fold higher affinity for the ligand than activin A type II receptor.

Basic Information

Description

Recombinant Human Activin RIIB/ACVR2B Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ser19-Thr134) of human ACVR2B/Activin RIIB (Accession #NP_001097.2) fused with an Fc, 6xHis tag at the C-terminus.

Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized Human ACVR2B at 1 μg/mL (100 μL/well) can bind Human BMPRIA with a linear range of 0.5-62.5 ng/mL. 2. Measured by its binding ability in a functional ELISA. Immobilized Human CD105 at 1 μg/mL (100 μL/well) can bind Human ACVR2B with a linear range of 0.49-43.03 ng/mL.

Storage

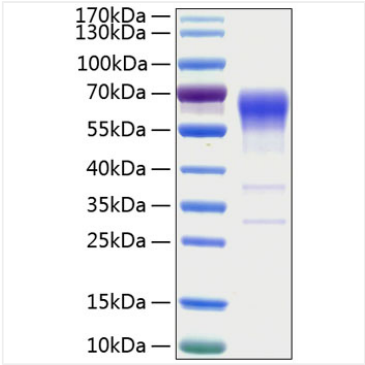
Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. Avoid repeated freeze/thaw cycles.

Contact

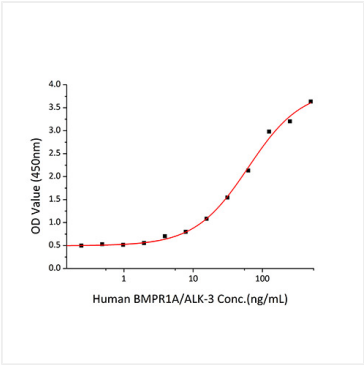
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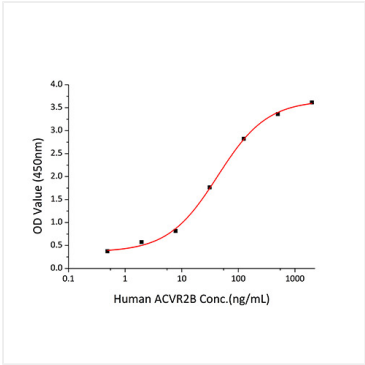
Validation Data



Recombinant Human Activin RIIB/ACVR2B Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 50-70 kDa.



Immobilized Human ACVR2B at 1 µg/mL (100 µL/well) can bind Human BMPRI1A with a linear range of 0.5-62.5 ng/mL.



Immobilized Human CD105 at 1µg/mL (100 µL/well) can bind Human ACVR2B with a linear range of 0.49-43.03 ng/mL.