

Recombinant Human Activin RIIB/ACVR2B Protein

Catalog No.: RP00153 Recombinant

Sequence Information

Species Gene ID Swiss Prot Human 93 013705

Tags

C-hFc&His

Synonyms

ACVR2B;ACTRIIB;ActR-IIB;HTX4

Product Information

Source Purification HEK293 cells ≥ 95 % as

determined by SDS-

PAGE.

Calculated MW Observed MW

40.12 kDa 55-70 kDa

Endotoxin

< 0.1 EU/ μ g 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 stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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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, 6×His tag at the C-terminus.

Bio-Activity

1.Measured by its binding ability in a functional ELISA.Immobilized Human ACVR2B at 1 $\mu g/mL$ (100 $\mu L/well)$ 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 $\mu g/mL$ (100 $\mu L/well$) can bind Human ACVR2B with a linear range of 0.49-43.03 ng/mL.

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

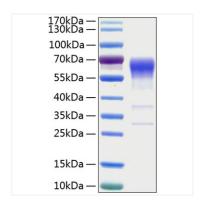
After reconstitution, the protein solution is stable at -20 $^{\circ}$ C for 3 months, at 2-8 $^{\circ}$ C for up to 1 week.

Avoid repeated freeze/thaw cycles.

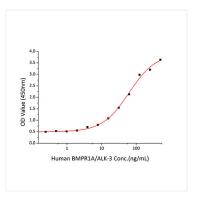
Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

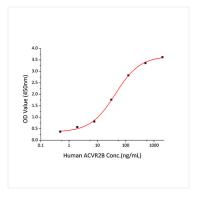
Validation Data



Recombinant Human Activin RIIB/ACVR2B Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Immobilized Human ACVR2B at 1 μ g/mL (100 μ L/well) can bind Human BMPRIA with a linear range of 0.5-62.5 ng/mL.



Immobilized Human CD105 at $1\mu g/mL$ (100 $\mu L/well)$ can bind Human ACVR2B with a linear range of 0.49-43.03 ng/mL.