RP00156
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Recombinant Human BMPR-1A/ALK-3/CD292 Protein

Catalog No.: RP00156 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
HEK293 cells	657	P36894

Tags
C-hFc&His

Synonyms
BMPR1A;10q23del;ACVRLK3;ALK3;CD292;SKR5

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 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

The bone morphogenetic protein (BMP) receptors are a family of transmembrane serine/threonine kinases that include the type I receptors BMPR1A and BMPR1B and the type II receptor BMPR2. These receptors are also closely related to the activin receptors, ACVR1 and ACVR2. The ligands of these receptors are members of the TGF-beta superfamily. TGF-betas and activins transduce their signals through the formation of heteromeric complexes with 2 different types of serine (threonine) kinase receptors: type I receptors of about 50-55 kD and type II receptors of about 70-80 kD. Type II receptors bind ligands in the absence of type I receptors, but they require their respective type I receptors for signaling, whereas type I receptors require their respective type II receptors for ligand binding.

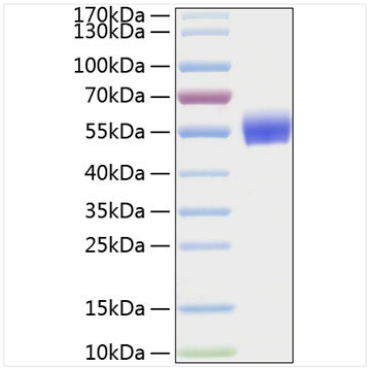
Basic Information

Description
Active Recombinant Human BMPR-1A/ALK-3 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Gln24-Arg152) of human BMPRIA/ALK-3/CD292 (Accession #NP_004320.2) fused with an Fc, 6×His tag at the C-terminus.

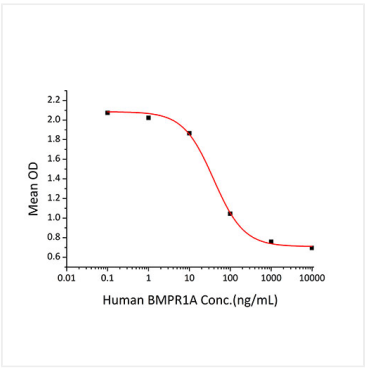
Bio-Activity
Measured by its binding ability in a functional ELISA. Immobilized Human ACVR2B at 1 μg/mL (100 μL/well) can bind Human BMPRIA with a linear range of 0.5-62.5 ng/mL.

Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

Validation Data



Active Recombinant Human BMPR-1A/ALK-3 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 55 kDa.



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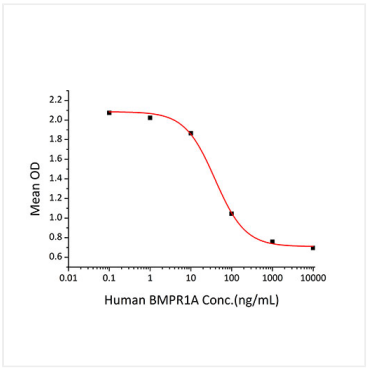

Recombinant human BMPR1A inhibits rhBMP-4-induced alkaline phosphatase production by ATDC5 mouse chondrogenic cells.The ED_{50} for this effect is 19.5-78 ng/mL in the presence of 15 ng/mL of Recombinant Human BMP-4.