

BMPRI^B Active Protein | BMPRI^B active protein

BMPRI^B Protein, Human, Recombinant (hFc Tag)

CATALOG #
AAA257887

HOST
HEK293 Cells

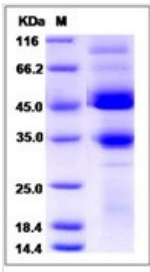
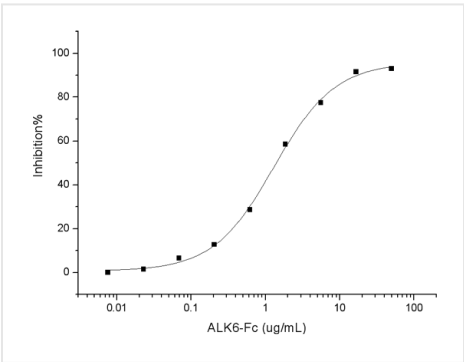
PRODUCT SYNONYMS

BMPRI^B; BMPRI^B Protein; Human; Recombinant (hFc Tag); Human BMPRI^B/ALK-6 Protein (Fc Tag); ALK-6 Protein; ALK6 Protein; CDw293 Protein; bone morphogenetic protein receptor; type IB; BMPRI^B active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>90% 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	Lys14-Arg126
Species	Human
Activity	Measured by its ability to inhibit rhBMP4-induced alkaline phosphatase production by MC3T3-E1 mouse osteoblastic cells. The ED50 for this effect is typically 2-8ug/mL in the presence of 50ng/mL of recombinant human BMP4.
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Lys 14
Tag	C-human IgG1-Fc
Protein Construction	A DNA sequence encoding the human ALK6 (NP_001194.1)(Lys14-Arg126) was expressed with the Fc region of human IgG1 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.

IMAGES



SDS-PAGE

Application Data

Measured by its ability to inhibit rhBMP4-induced alkaline phosphatase production by MC3T3-E1 mouse osteoblastic cells. The ED50 for this effect is typically 2-8 ug/mL in the presence of 50 ng/mL of recombinant human BMP4.

ADDITIONAL INFORMATION

Related Product Information for BMPR1B active protein

Background: BMPR1B(bone morphogenetic protein receptor, type IB), also known as ALK6, is a member of the bone morphogenetic protein (BMP) receptor family. BMPs are involved in endochondral bone formation and embryogenesis. These proteins transduce their signals through the formation of heteromeric complexes of 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. BMPR1B is the major transducer of signals in precartilaginous condensations as demonstrated in experiments using constitutively active BMPR1B receptors. BMPR1B is a more effective transducer of GDF5 than BMPR1A. Unlike BMPR1A null mice, which die at an early embryonic stage, BMPR1B null mice are viable.

References

Ide H, et al. (1998) Assignment of the BMPR1A and BMPR1B genes to human chromosome 10q22.3 and 4q23--q24 by in situ hybridization and radiation hybrid map ping. Cytogenet. Cell Genet. 81(3-4): 285-6. Mishina Y, et al. (2004) Bone morphogenetic protein type IA receptor signaling regulates postnatal osteoblast function and bone remodeling. J Biol Chem. 279(26): 27560-6. Yoon BS, et al. (2005) Bmpr1a and Bmpr1b have overlapping functions and are essential for chondrogenesis in vivo. Proc Natl Acad Sci. 102(14): 5062-7.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4502431
NCBI GeneID	658
NCBI Accession #	NP_001194.1
NCBI GenBank Nucleotide #	NM_001203.2
UniProt Accession #	O00238; P78366; B2R953; B4DSV1
Molecular Weight	60,582 Da
NCBI Official Full Name	bone morphogenetic protein receptor type-1B isoform b
NCBI Official Synonym Full Names	bone morphogenetic protein receptor type 1B
NCBI Official Symbol	BMPR1B
NCBI Official Synonym Symbols	ALK6; AMDD; BDA2; ALK-6; BDA1D; CDw293
NCBI Protein Information	bone morphogenetic protein receptor type-1B
UniProt Protein Name	Bone morphogenetic protein receptor type-1B
UniProt Gene Name	BMPR1B

UniProt Synonym Gene Names	BMP type-1B receptor; BMPR-1B
UniProt Entry Name	BMR1B_HUMAN

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.

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Online datasheet: <https://stage.aaabiotech.com/hek293-cells-bmpr1b-active-protein/bmpr1b/257887>