

Active Recombinant Human BMPR1A Protein

Cat. No. BMPR1A-32H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human BMPR1A Protein is produced by CHO cells expression system. This protein is a glycosylated homodimer chain containing 2x362 amino acids and having a total molecular mass of 80.8kDa. BMPR1A is purified by proprietary chromatographic techniques.
Species	Human
Source	CHO
Description	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 receptors, ACVR1 and ACVR2. The ligands of these receptors are members of the TGF-beta superfamily. TGF-betas 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.
Form	Sterile Filtered White lyophilized (freeze-dried) powder. The protein was lyophilized from a sterile (0.2µ) filtered solution containing PBS.
Bio-activity	The ED50, as calculated by the Inhibition of human BMP-4-induced alkaline

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phosphatase production caused by ATDC5 cells is 120ng/ml corresponding to a specific activity of 8.3×10^3 units/mg.

Molecular Mass 80.8 kDa

AA Sequence

QNLDSMLHGT GMKSDSDQKK SENGVTLAPE DTLPFLKCYC SGHCPDDAIN
 NTCITNGHCF AIIEEDDQGE TTLASGCMKY EGSDFQCKDS PKAQLRRTIE
 CCRTNLCNQY LQPTLPPVVI GPFFDGSIRI EGRMDDKTHT CPPCPAPELL
 GGPSVFLFPP KPKDTLMISR TPEVTCVVVD VSHEDPEVKF NWYVDGVEVH
 NAKTKPREEQ YNSTYRVVSV LTVLHQDWLN GKEYKCKVSN KALPAPIEKT
 ISKAKGQPRE PQVYTLPPSR DELTKNQVSL TCLVKGFYPS DIAVEWESNG
 QPENNYKTHP PVLDSGGSFF LYSKLTVDKS RWQQGNVFSC SVMHEALHNH
 YTQKSLSLSP GK.

Purity > 95.0% as determined by SDS-PAGE.

Notes LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Storage Lyophilized BMPR1A although stable at room temperature for 3 weeks, should be stored desiccated below -18 centigrade. Upon reconstitution BMPR1A should be stored at 4 centigrade between 2-7 days and for future use below -18 centigrade. Please prevent freeze-thaw cycles.

Reconstitution It is recommended to reconstitute the lyophilized BMPR1A in sterile 18MΩ-cm H₂O not less than 100g/ml, which can then be further diluted to other aqueous solutions.

GENE INFORMATION

Gene Name BMPR1A bone morphogenetic protein receptor, type IA [Homo sapiens]

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Official Symbol	BMPR1A
Synonyms	BMPR-1A; BMP-R1A; BMPR1A; BMR1A; CD292; CD-292; SKR5; ALK-3; ACVRLK3; EC 2.7.11.30; CD292 antigen;
Gene ID	657
mRNA Refseq	NM_004329
Protein Refseq	NP_004320
MIM	601299
UniProt ID	P36894

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