

## Active Recombinant Human BMPR1A Protein

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

### SPECIFICATION

<b>Product Overview</b>	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.
<b>Species</b>	Human
<b>Source</b>	CHO
<b>Description</b>	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.
<b>Form</b>	Sterile Filtered White lyophilized (freeze-dried) powder. The protein was lyophilized from a sterile (0.2µ) filtered solution containing PBS.
<b>Bio-activity</b>	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  $8.3 \times 10^3$  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 NWWYVDGVEVH  
 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 H<sub>2</sub>O 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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<b>Official Symbol</b>	BMPR1A
<b>Synonyms</b>	BMPR-1A; BMP-R1A; BMPR1A; BMR1A; CD292; CD-292; SKR5; ALK-3; ACVRLK3; EC 2.7.11.30; CD292 antigen;
<b>Gene ID</b>	657
<b>mRNA Refseq</b>	NM_004329
<b>Protein Refseq</b>	NP_004320
<b>MIM</b>	601299
<b>UniProt ID</b>	P36894

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