

## 32-6310: BMPR1A Human, CHO

**Application :** Functional Assay

**Alternative Name :** BMPR-1A, BMP-R1A, BMPR1A, BMR1A, CD292, CD-292, Serine/threonine-protein kinase receptor R5, SKR5, ALK-3, ACVRLK3, EC 2.7.11.30, CD292 antigen.

### Description

Source: CHO cells.

Sterile Filtered White lyophilized (freeze-dried) powder.

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.

Bone Morphogenetic Protein Receptor-1A Human Recombinant produced in CHO cells 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.

### Product Info

**Amount :** 50 µg / 100 µg

**Purification :** Greater than 95.0% as determined by SDS-PAGE.

**Content :** The protein was lyophilized from a sterile (0.2µm) filtered solution containing PBS. It is recommended to reconstitute the lyophilized BMPR1A in sterile 18M Omega -cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

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

**Amino Acid :** QNLDSMLHGT GMKSDSDQKK SENGVTLAPE DTLPFLKCYC SGHCPDDAIN NTCITNGHCF AII EEDDQGE  
TTLASGCMKY EGSDFQCKDS PKAQLRRTIE CCRTNLCNQY LQPTLPPVI GPFFDGSIRI EGRMDDKTH  
CPPCPAPELL GGPSVFLFPP KPKDTLMISR TPEVTCVVVD VSHEDPEVKF NWYVDGVEVH NAKTKPREEQ  
YNSTYRVVSV LTVLHQDWLN GKEYKCKVSN KALPAPIEKT ISKAKGQPRE PQVYTLPPSR DELTKNQVSL  
TCLVKGFYPS DIAVEWESNG QPENNYKTP PVLDSGDGFF LYSKLTVDKS RWQQGNVFSC  
SVMHEALHNNH YTQKLSLSLP GK.

### Application Note

The ED50, as calculated by the Inhibition of human BMP-4-induced alkaline phosphatase production caused by ATDC5 cells is 120ng/ml corresponding to a specific activity of  $8.3 \times 10^3$  units/mg.