

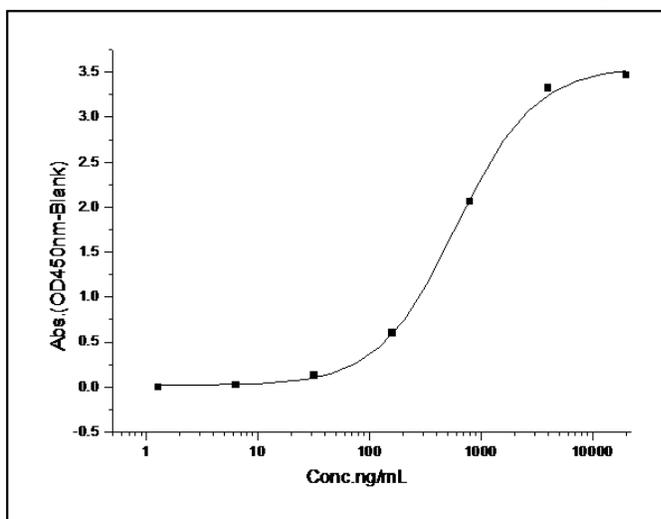
BMPR2

Recombinant Human BMPR2 / BMPR-II (His & Fc Tag)

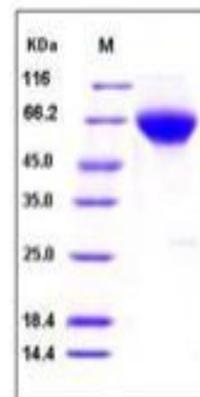
Catalog No.	CRH507A-HisFc CRH507B-HisFc	Quantity:	100 µg 200 µg
Alternate Names:	Bone morphogenetic protein receptor type-2, BMP type-2 receptor, BMPR-2, Bone morphogenetic protein receptor type II, BMP type II receptor, BMPR-II		
Description:	The bone morphogenetic protein type II receptor (BMPR-II, or BMPR2), a receptor for the transforming growth factor (TGF)-beta/bone morphogenetic protein (BMP) superfamily. Reduced expression or function of BMPR2 signaling leads to exaggerated TGF-beta signaling and altered cellular responses to TGF-beta. In endothelial cells, BMPR2 mutation increases the susceptibility of cells to apoptosis. BMPR2 transduces BMP signals by forming heteromeric complexes with and phosphorylating BMP type I receptors. The intracellular domain of BMPR2 is both necessary and sufficient for receptor complex interaction. It had been identified that BMPR2 plays a key role in cell growth. Its mutations lead to hereditary pulmonary hypertension, and knockout of Bmpr-II results in early embryonic lethality. The C-terminal tail of BMPR2 provides binding sites for a number of regulatory proteins that may initiate Smad-independent signalling. BMPR2 mutations were predicted to alter the BMP and TGF-b1/SMAD signalling pathways, resulting in proliferation rather than apoptosis of vascular cells, and greatly increase the risk of developing severe pulmonary arterial hypertension.		
UniProt ID:	Q13873		
Accession Number:	NP_001195.2		
Protein Construction:	A DNA sequence encoding the human BMPR-II extracellular domain (Met 1-Ile 151) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.		
Source:	HEK293 Cells		
Formulation:	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.		
Molecular Weight:	The rhBMPR-II/Fc is a disulfide-linked homodimer. The reduced monomer consists of 373 amino acids and has a predicted molecular mass of 42 kDa. As a result of glycosylation, the rhBMPR-II/Fc monomer migrates at ~60-65 kDa in SDS-PAGE under reducing conditions.		
Purity:	> 90 % as determined by SDS-PAGE		
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method		
Biological Activity:	1. Measured by its binding ability in a functional ELISA. 2. Immobilized human BMPR-II-Fc at 10 µg/mL (100 µl/well) can bind biotinylated human BMP2-Fc, The EC50 of biotinylated human BMP2-Fc is 80-110 ng/mL.		
Predicted N-terminal:	Ser 27		

- Reconstitution:** **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX.** Allow several minutes for complete reconstitution.
- Storage & Stability:** Stable for up to 1 year from date of receipt at -20°C to -80°C. After reconstitution, store working aliquots at -20°C to -80°C. **Avoid repeated freeze-thaw cycles.**

Measured by its binding ability in a functional ELISA. Immobilized human BMPR-II-Fc at 10 µg/mL (100 µl/well) can bind biotinylated human BMP2-Fc. The EC50 of biotinylated human BMP2-Fc is 80-110 ng/mL.



SDS-PAGE



NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.