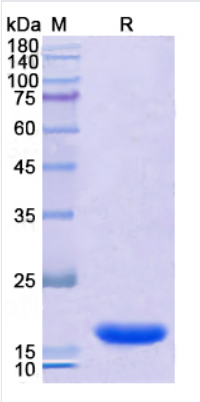
BMPR2 Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	BMPR2, Recombinant Protein
Full Product Name	Recombinant Human BMPR2, N-His
Product Gene Name	BMPR2 recombinant protein
Product Synonym Names	BMP type II receptor; BMPR-II; Bone morphogenetic protein receptor type II; Bone morphogenetic protein receptor type-2; BMPR2; PPH1; BMP type-2 receptor; BMPR-2
Host	E coli
Form/Format	Lyophilized from a solution in PBS pH7.4, 0.02% NLS, 1mM EDTA, 4% Trehalose, 1% Mannitol.
Purity/Purification	>90% as determined by SDS-PAGE
Preparation and Storage	Use a manual defrost freezer and avoid repeated freeze thaw cycles. Store at 2 to 8 degree C for one week. Store at -20 to -80 degree C for twelve months from the date of receipt.
Molecular Weight	115,201 Da
Sequence Positions	Ser27-Thr150
Chromosome Location	Chromosome: 2; NC_000002.11 (203241050..203432474). Location: 2q33-q34
OMIM	178600
3D Structure	ModBase 3D Structure for Q13873
Species	Human
Reconstitution	Reconstitute in sterile water for a stock solution.
Product Categories/Family for BMPR2 recombinant protein	Recombinant Proteins
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for BMPR2 recombinant protein	SDS-PAGE (SDS), Western Blot (WB), ELISA (EIA), Immunogen
Related Product Information for BMPR2 recombinant protein	MBS1574663 is a recombinant protein targeting BMPR2. Also known as Recombinant Human BMPR2, N-His. Host: E coli.
Other Notes	Small volumes of BMPR2 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



SDS-Page of BMPR2 recombinant protein
SDS PAGE for recombinant Human BMPR2 protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BMPR2. It may not necessarily be applicable to this product.

NCBI GI #	15451916
NCBI GeneID	659
NCBI Accession #	NP_001195.2
UniProt Primary Accession #	Q13873
UniProt Secondary Accession #	Q16569; Q4ZG08; Q53SA5; Q585T8
UniProt Related Accession #	Q13873
GenBank Nucleotide #	NM_001204.6
NCBI Official Full Name	bone morphogenetic protein receptor type-2
NCBI Official Synonym Full Names	bone morphogenetic protein receptor, type II (serine/threonine kinase)
NCBI Official Symbol	BMPR2
NCBI Official Synonym Symbols	BMR2; PPH1; BMPR3; BRK-3; T-ALK; BMPR-II
UniProt Protein Name	Bone morphogenetic protein receptor type-2
UniProt Synonym Protein Names	Bone morphogenetic protein receptor type II
Protein Family	Bone morphogenetic protein receptor
UniProt Gene Name	BMPR2
UniProt Synonym Gene Names	PPH1; BMP type-2 receptor; BMPR-2; BMP type II receptor; BMPR-II
UniProt Entry Name	BMPR2_HUMAN
NCBI Protein Information	bone morphogenetic protein receptor type-2; BMPR-2; BMP type-2 receptor; BMP type II receptor; type II activin receptor-like kinase; bone morphogenetic protein receptor type II; type II receptor for bone morphogenetic protein-4
NCBI Summary for BMPR2	This gene encodes a member of the bone morphogenetic protein (BMP) receptor family of transmembrane serine/threonine kinases. The ligands of this receptor are BMPs, which are members of the TGF-beta superfamily. BMPs are involved in endochondral bone formation and embryogenesis. These proteins transduce their signals through the formation of heteromeric complexes of two 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. Mutations in this gene have been associated with primary pulmonary hypertension, both familial and fenfluramine-associated, and with pulmonary venoocclusive disease. [provided by RefSeq, Jul 2008]

UniProt Comments for BMPR2	BMPR2: a serine/threonine-protein kinase receptor for bone morphogenetic protein (BMP). Binds to BMP-7, BMP-2 and, less efficiently, BMP-4. Binding is weak but enhanced by the presence of type I receptors for BMPs. On ligand binding, forms a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate SMAD transcriptional regulators. Defects in BMPR2 are the cause of primary pulmonary hypertension (PPH1), a weakly penetrant dominant disorder, associated with lesions in pulmonary arterioles, elevated pulmonary arterial pressure, and right ventricular failure. Protein type: EC 2.7.11.30; Kinase, protein; Cell cycle regulation; Protein kinase, TKL; Membrane protein, integral; Protein kinase, Ser/Thr (receptor); TKL group; STKR family; Type2 subfamily Chromosomal Location of Human Ortholog: 2q33-q34 Cellular Component: extracellular space; cell surface; cell soma; integral to plasma membrane; apical plasma membrane; dendrite; cytoplasm; plasma membrane; basal plasma membrane; caveola Molecular Function: transforming growth factor beta receptor activity; protein binding; growth factor binding; metal ion binding; activin receptor activity, type II; ATP binding; receptor signaling protein serine/threonine kinase activity Biological Process: limb development; transcription from RNA polymerase II promoter; regulation of lung blood pressure; activin receptor signaling pathway; protein amino acid phosphorylation; anterior/posterior pattern formation; BMP signaling pathway; proteoglycan biosynthetic process; lymphangiogenesis; transmembrane receptor protein serine/threonine kinase signaling pathway; positive regulation of BMP signaling pathway; negative regulation of systemic arterial blood pressure; chondrocyte development; positive regulation of bone mineralization; cellular response to starvation; negative regulation of vasoconstriction; regulation of cell proliferation; positive regulation of osteoblast differentiation; mesoderm formation; positive regulation of axon extension involved in axon guidance; positive regulation of endothelial cell proliferation; blood vessel remodeling; brain development; negative regulation of cell growth; vascular endothelial growth factor receptor signaling pathway; alveolus development Disease: Pulmonary Venoocclusive Disease 1, Autosomal Dominant; Pulmonary Hypertension, Primary, 1
Research Articles on BMPR2	**1.** these results further supports the role of the atlastin-1 of BMP signaling cascade in axonal maintenance and axonal degeneration, which is seen in various types of hereditary spastic paraplegia.
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