BMPR2 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	BMPR2, Monoclonal Antibody
Full Product Name	BMPR2 (Bone Morphogenetic Protein Receptor Type-2, BMP Type-2 Receptor, BMPR-2, Bone Morphogenetic Protein Receptor Type II, BMP Type II Receptor, BMPR-II, PPH1) (MaxLight 750)
Product Gene Name	anti-BMPR2 antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	4A2
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight750.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human BMPR2.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight750 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	59,963 Da
OMIM	178600
3D Structure	ModBase 3D Structure for Q13873
Immunogen	Partial recombinant corresponding to aa939-1037 from human BMPR2 (NP_001195) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	NSLDLSATNVLDGSSIQIGESTQDGKSGSGEKIKKRVKTPYSLKRWRPSTWVISTESLDCEVNNNGSNRAVHSKSSTAVYLAEGGTATTMVSKDIGMNC
Conjugate	MaxLight750
Product Categories/Family for anti-BMPR2 antibody	Antibodies; Receptors; Growth Factor
Applications Tested/Suitable for anti-BMPR2 antibody	FLISA
Application Notes for anti-BMPR2 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-BMPR2 antibody	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. 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.

Other Notes	Small volumes of anti-BMPR2 antibody 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.
Searchable Terms for BMPR2 purchase	MBS6231797 is an antibody targeting BMPR2. Also known as BMPR2 (Bone Morphogenetic Protein Receptor Type-2, BMP Type-2 Receptor, BMPR-2, Bone Morphogenetic Protein Receptor Type II, BMP Type II Receptor, BMPR-II, PPH1) (MaxLight 750). Reactive in Human. Host: Mouse.

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
UniProt Primary Accession #	Q13873
UniProt Secondary Accession #	Q13161; Q16569; Q4ZG08; Q53SA5; Q585T8
UniProt Related Accession #	Q13873
GenBank Nucleotide #	NM_001204
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; POVD1; 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; BMP type II receptor; BMP type-2 receptor; BMPR-2; bone morphogenetic protein receptor type II; type II activin receptor-like kinase; type II receptor for bone morphogenetic protein-4

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
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