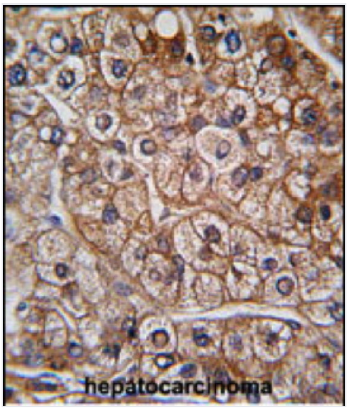
BMPR2 Antibody – Rabbit Polyclonal

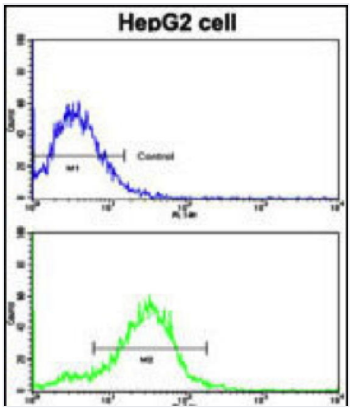
PRODUCT OVERVIEW

Product Name	BMPR2, Polyclonal Antibody
Full Product Name	BMPR2, NT (Bone morphogenetic protein receptor type-2, Bone morphogenetic protein receptor type II, BMP type II receptor, BMPR-II, PPH1) (MaxLight 405)
Product Gene Name	anti-BMPR2 antibody
Product Synonym Names	Bone morphogenetic protein receptor type-2; Bone morphogenetic protein receptor type II; BMP type II receptor; BMPR-II; PPH1
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405.
Purity/Purification	Purified by Protein A/G Affinity Chromatography.
Specificity	Recognizes human BMPR2. Species Crossreactivity: mouse
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: MaxLight405 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	115,201 Da
Chromosome Location	Chromosome: 2; NC_000002.11 (203241050..203432474). Location: 2q33-q34
OMIM	178600
3D Structure	ModBase 3D Structure for Q13873
Immunogen	KLH-conjugated synthetic peptide mapping to a fragment of residues within amino acids 27-56 in the N-terminal region of human BMPR2, UniProt Accession #Q13873.
Conjugate	MaxLight405
Note	Preservative Free
Product Categories/Family for anti-BMPR2 antibody	Antibodies; Receptors; Growth Factor
Applications Tested/Suitable for anti-BMPR2 antibody	Immunohistochemistry (IHC), Flow Cytometry (FC/FACS), FLISA
Application Notes for anti-BMPR2 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-BMPR2 antibody	MaxLight405 is a new Violet photostable dye conjugate comparable to Alexa Fluor 405, PacificBlue, Brilliant Violet 421 and offers better labeling efficiency, brighter imaging and increased immunodetection. Absorbance (400nm); Emission (423nm); Extinction Coefficient 32,000.
Product References and Citations for anti-BMPR2 antibody	1. Pouliot, F., et al., Cancer Res. 63(2):277-281 (2003). 2. Nishihara, A., et al., Mol. Biol. Cell 13 (9):3055-3063 (2002). 3. Humbert, M., et al., Eur Respir J 20(3):518-523 (2002). 4. Vitt, U.A., et al., Biol. Reprod. 67(2):473-480 (2002). 5. Nohe, A., et al., J. Biol. Chem. 277(7):5330-5338 (2002).

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	MBS6278675 is an antibody targeting BMPR2. Also known as BMPR2, NT (Bone morphogenetic protein receptor type-2, Bone morphogenetic protein receptor type II, BMP type II receptor, BMPR-II, PPH1) (MaxLight 405). Reactive in Human, Mouse. Host: Rabbit.



Immunohistochemistry (IHC) of anti-BMPR2 antibody
Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted withMBS6012256, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow Cytometry (FC/FACS) of anti-BMPR2 antibody
Flow cytometric analysis of HepG2 cells using MBS6012256 (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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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