

BMPR2 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP2006b**Specification**

BMPR2 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q13873](#)**BMPR2 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 659**Other 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, BMPR2, PPH1

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP2006b](/product/products/AP2006b) was selected from the N-term region of human BMPR2 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

BMPR2 Antibody (N-term) Blocking Peptide - Protein Information**Name** BMPR2**Synonyms** PPH1**Function**

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. Can also mediate signaling through the activation of the p38MAPK cascade (PubMed: [12045205](http://www.uniprot.org/citations/12045205)). Binds to BMP7, BMP2 and, less efficiently, BMP4. Binding is weak but enhanced by the presence of type I receptors for BMPs. Mediates induction of adipogenesis by GDF6. Promotes signaling also by binding to activin A/INHBA (PubMed: [24018044](http://www.uniprot.org/citations/24018044)).

Cellular Location

Cell membrane; Single-pass type I membrane protein

Tissue Location

Highly expressed in heart and liver.

BMPR2 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

BMPR2 Antibody (N-term) Blocking Peptide - Images**BMPR2 Antibody (N-term) Blocking Peptide - Background**

BMPR2 is 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 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. Mutations in BMPR2 have been associated with primary pulmonary hypertension.

BMPR2 Antibody (N-term) Blocking Peptide - References

Pouliot, F., et al., Cancer Res. 63(2):277-281 (2003). Nishihara, A., et al., Mol. Biol. Cell 13(9):3055-3063 (2002). Humbert, M., et al., Eur Respir J 20(3):518-523 (2002). Vitt, U.A., et al., Biol. Reprod. 67(2):473-480 (2002). Nohe, A., et al., J. Biol. Chem. 277(7):5330-5338 (2002).