

**BMPR2 Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP2006a**

**Specification**

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**BMPR2 Antibody (N-term) - Product Information**

Application	WB, IHC-P, FC,E
Primary Accession	<a href="#">O13873</a>
Other Accession	<a href="#">O35607</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	28-59

**BMPR2 Antibody (N-term) - 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**

This BMPR2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 28-59 amino acids from the N-terminal region of human BMPR2.

**Dilution**

WB~~1:1000  
IHC-P~~1:10~50  
FC~~1:10~50

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

BMPR2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**BMPR2 Antibody (N-term) - 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](#)). 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.

## Cellular Location

Cell membrane; Single-pass type I membrane protein

## Tissue Location

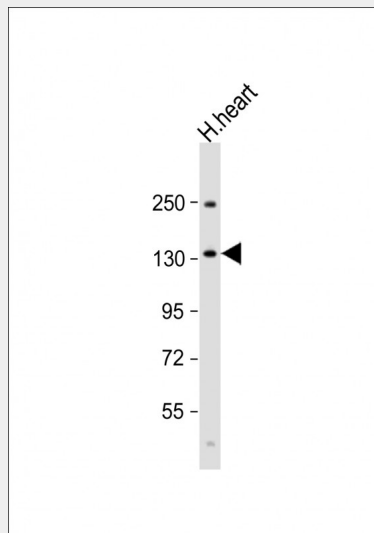
Highly expressed in heart and liver.

## BMPR2 Antibody (N-term) - Protocols

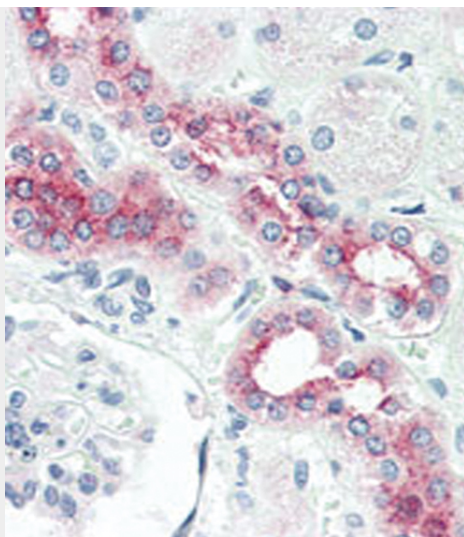
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

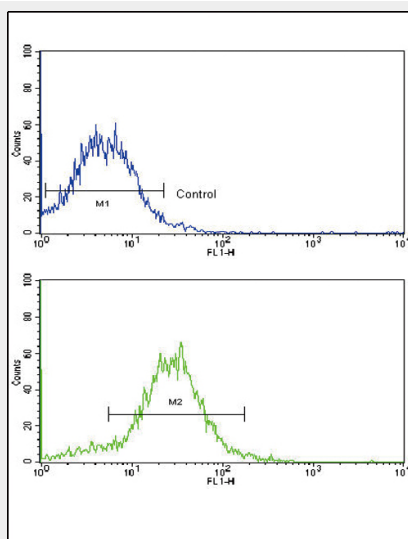
## BMPR2 Antibody (N-term) - Images



Anti-BMPR2 Antibody (D43) at 1:1000 dilution + human heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 115 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human Kidney tissue reacted with BMPR2 antibody (N-term)(Cat.#AP2006a), which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of HepG2 cells using BMPR2 Antibody (N-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

### **BMPR2 Antibody (N-term) - 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) - 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).

**BMPR2 Antibody (N-term) - Citations**

- [BMP-dependent, injury-induced stem cell niche as a mechanism of heterotopic ossification.](#)
- [BMP signaling induces astrocytic differentiation of clinically derived oligodendrogloma propagating cells.](#)
- [Roles of miR-1-1 and miR-181c in ventricular septal defects.](#)
- [Binding of carbon nanotube to BMP receptor 2 enhances cell differentiation and inhibits apoptosis via regulating bHLH transcription factors.](#)
- [Expression of gremlin, a bone morphogenetic protein antagonist, is associated with vascular calcification in uraemia.](#)
- [Dysfunction of Golgi tethers, SNAREs, and SNAPs in monocrotaline-induced pulmonary hypertension.](#)
- [The BMP type II receptor is located in lipid rafts, including caveolae, of pulmonary endothelium in vivo and in vitro.](#)