

**BMPR2 Antibody (NT)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV11322****Specification**

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**BMPR2 Antibody (NT) - Product Information**

Application	WB, IHC, FC
Primary Accession	<a href="#">Q13873</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	115201

**BMPR2 Antibody (NT) - Additional Information****Gene ID** 659

Positive Control	Western blot: mouse heart tissue lysate, IHC: human hepatocarcinoma and kidney tissues, FACS: HepG2 cells.
Application & Usage	WB: 1:1000, IHC: 1:10 - 1:50, FC: 1:10 - 1:50.

**Other Names**

BMPR2; PPH1; Bone morphogenetic protein receptor type-2; Bone morphogenetic protein receptor type II

**Target/Specificity**

BMPR2

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

In PBS with 0.09% (W/V) sodium azide.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

BMPR2 Antibody (NT) is for research use only and not for use in diagnostic or therapeutic

procedures.

## **BMPR2 Antibody (NT) - 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:<a href="http://www.uniprot.org/citations/12045205" target="\_blank">12045205</a>). 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 (NT) - 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 (NT) - Images**

## **BMPR2 Antibody (NT) - Background**

BMPR2 is a type II serine/threonine receptor kinase that binds to an array of secreted bone morphogenetic proteins (BMPs). BMPs belong to the superfamily of TGF- $\beta$  ligands that modulate gastrulation, neurogenesis, chondrogenesis, interdigital cell death, and bone morphogenesis. In contrast to the TGF- $\beta$  type II receptor, BMPR2 contains an extended carboxyl-terminal region that interacts with multiple signaling molecules to modulate the responsiveness of target genes to BMPs. BMP signaling requires oligomerization of both type I and type II receptors to elicit a functional response of target genes. BMP binding to type I and II receptors induces Smad1/5/8 phosphorylation which is required for the activation of target genes. In vitro and in vivo evidence suggests that defects in BMPR2 may contribute to pulmonary hypertension, inflammation, and endothelial injury.