# Product datasheet

## Anti-BMPR2 antibody ab96826

- **Description**: Rabbit polyclonal to BMPR2
- **Host species**: Rabbit
- **Tested applications**: Suitable for: ICC/IF, WB
- **Species reactivity**: Reacts with: Mouse, Human  
  Predicted to work with: Rat
- **Immunogen**: Recombinant fragment containing a sequence corresponding to a region within amino acids 667-921 of Human BMPR2 (NP_001195).
- **Positive control**: H1299, Raji and NIH 3T3 whole cell lysates This antibody gave a positive result when used in the following formaldehyde fixed cell lines: MCF-7.

## Properties

- **Form**: Liquid
- **Storage instructions**: Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
- **Storage buffer**: pH: 7.00  
  Preservative: 0.025% Proclin 300  
  Constituents: PBS, 1% BSA, 20% Glycerol
- **Purity**: Immunogen affinity purified
- **Clonality**: Polyclonal
- **Isotype**: IgG

## Applications

Our [Abpromise guarantee](#) covers the use of ab96826 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<td>ICC/IF</td>
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<td>Use a concentration of 5 µg/ml.</td>
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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. 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.

Tissue specificity
Highly expressed in heart and liver.

Involvement in disease
Defects in BMPR2 are the cause of primary pulmonary hypertension (PPH1) [MIM:178600]. PPH1 is a rare autosomal dominant disorder characterized by plexiform lesions of proliferating endothelial cells in pulmonary arterioles. The lesions lead to elevated pulmonary arterial pressure, right ventricular failure, and death. The disease can occur from infancy throughout life and it has a mean age at onset of 36 years. Penetration is reduced. Although familial PPH1 is rare, cases secondary to known etiologies are more common and include those associated with the appetite-suppressant drugs.
Defects in BMPR2 are a cause of pulmonary venoocclusive disease (PVOD) [MIM:265450]. PVOD is a rare form of pulmonary hypertension in which the vascular changes originate in the small pulmonary veins and venules. The pathogenesis is unknown and any link with PPH1 has been speculative. The finding of PVOD associated with a BMPR2 mutation reveals a possible pathogenetic connection with PPH1.

Sequence similarities
Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. TGFB receptor subfamily.
Contains 1 protein kinase domain.

Cellular localization
Membrane.

Images
ICC/IF image of ab96826 stained MCF-7 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab96826 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.
Western blot - Anti-BMPR2 antibody (ab96826)

**All lanes**: Anti-BMPR2 antibody (ab96826) at 1/1000 dilution

**Lane 1**: H1299 whole cell lysate

**Lane 2**: Raji whole cell lysate

Lysates/proteins at 30 µg per lane.

**Predicted band size**: 115 kDa

7.5% SDS-PAGE

Western blot - Anti-BMPR2 antibody (ab96826)

Anti-BMPR2 antibody (ab96826) at 1/1000 dilution + NIH-3T3 whole cell lysate at 30 µg

**Predicted band size**: 115 kDa

7.5% SDS-PAGE

**Please note**: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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