


Product datasheet

Anti-BMPR2 antibody ab106266

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Overview

<b>Product name</b>	Anti-BMPR2 antibody
<b>Description</b>	Rabbit polyclonal to BMPR2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 
<b>Immunogen</b>	Recombinant fragment, corresponding to amino acids 295 - 552 of Human BMPR2 (BC052985).
<b>Positive control</b>	Raji cell lysate IF/ICC: HeLa cell line

Properties

<b>Form</b>	Lyophilised:Reconstitute with 200ul distilled sterile water. Please note that if you receive this product in liquid form it has already been reconstituted as described and no further reconstitution is necessary.
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	Preservative: 0.02% Sodium Azide Constituents: PBS, pH 7.2
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab106266** in the following tested applications.

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

Application	Abreviews	Notes
ICC/IF		Use a concentration of 5 µg/ml.

Application	Abreviews	Notes
WB		1/500 - 1/1000. Predicted molecular weight: 115 kDa.
IHC-P		Use at an assay dependent concentration.

## Target

### 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 pression, right ventricular failure, and death. The disease can occur from infancy throughout life and it has a mean age at onset of 36 years. Penetrance 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

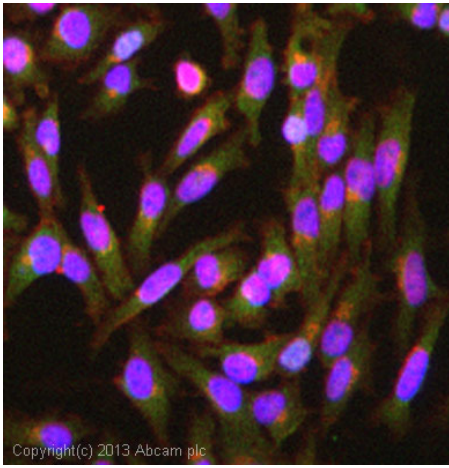
Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. TGFB receptor subfamily.

Contains 1 protein kinase domain.

### Cellular localization

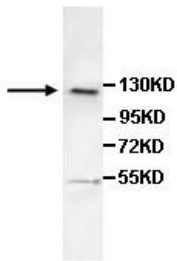
Membrane.

## Images



Immunocytochemistry/ Immunofluorescence - Anti-BMP2 antibody (ab106266)

ICC/IF image of ab106266 stained HeLa 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 (ab106266, 5µg/ml) overnight at +4°C. The secondary antibody (green) was ab96899, DyLight® 488 goat anti-rabbit 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-BMP2 antibody (ab106266)

Anti-BMP2 antibody (ab106266) at 1/500 dilution + Raji cell lysate

**Predicted band size:** 115 kDa

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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