

Anti-BMPR2 antibody [MM0060-9A10] ab78422

[12 References](#) [2 Images](#)

Overview

Product name	Anti-BMPR2 antibody [MM0060-9A10]
Description	Mouse monoclonal [MM0060-9A10] to BMPR2
Host species	Mouse
Specificity	ab78422 detects BMPR2. No cross reactivity was found to BMPR1A and BMPR1B.
Tested applications	Suitable for: Flow Cyt, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant human BMPR2 extracellular domain
Positive control	IHC-P: Human placenta tissue.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Constituent: PBS
Purity	Protein G purified
Purification notes	The IgG fraction of culture supernatant was purified by Protein G affinity chromatography and lyophilized from a 0.2 µm filtered solution in phosphate buffered saline (PBS).
Clonality	Monoclonal
Clone number	MM0060-9A10
Isotype	IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab78422 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
Flow Cyt		Use 1-2µg for 10 ⁶ cells. (methanol or paraformaldehyde fixed cells) ab170190 Mouse monoclonal IgG1 is suitable for use as an
IHC-P		1/50 - 1/200. Perform enzymatic antigen retrieval before commencing with IHC staining protocol. We recommend to use Proteinase K for the enzymatic antigen retrieval.

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 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. 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

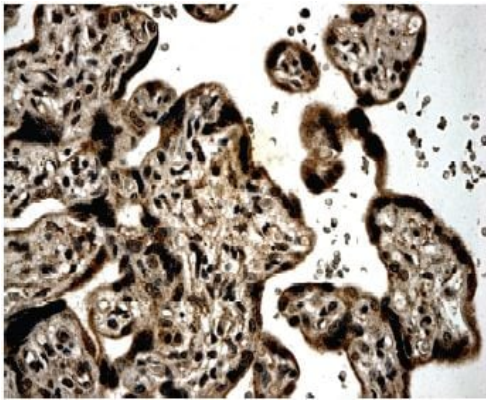
Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. TGFB receptor subfamily.

Contains 1 protein kinase domain.

Cellular localization

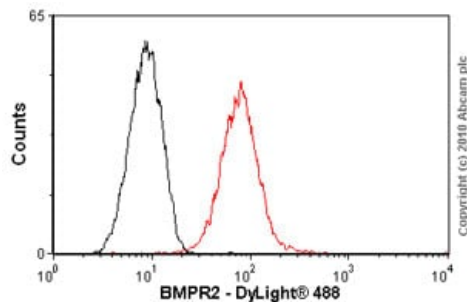
Membrane.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BMPR2 antibody [MM0060-9A10] (ab78422)

ab78422 at 1/200 dilution, staining BMPR2 in human placental tissue section by Immunohistochemistry (Formalin/PFA fixed paraffin-embedded sections).



Flow Cytometry - Anti-BMPR2 antibody [MM0060-9A10] (ab78422)

Overlay histogram showing HepG2 cells stained with ab78422 (red line). The cells were fixed with methanol (5 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab78422, 2µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) ([ab96879](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] ([ab91353](#), 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HepG2 cells fixed with 4% paraformaldehyde (10 min) used under the same conditions.

Please note that Abcam does not have data for use of this antibody on non-fixed cells. We welcome any customer feedback.

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

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