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BMPR2 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1536a

Specification

BMPR2 Antibody - Product Information

Application	**WB, IHC, ICC, E**
Primary Accession	Q13873
Reactivity	**Human, Mouse, Rat, Monkey**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**115kDa KDa**

Description
This gene encodes 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 two 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 this gene have been associated with primary pulmonary hypertension, both familial and fenfluramine-associated, and with pulmonary venoocclusive disease. (provided by RefSeq)

Immunogen
Purified recombinant fragment of human BMPR2 expressed in E. Coli.

Formulation
Ascitic fluid containing 0.03% sodium azide.

BMPR2 Antibody - Additional Information

Gene ID 659

Other Names
Bone morphogenetic protein receptor type-2, BMP type-2 receptor, BMPR-2, 2.7.11.30, Bone morphogenetic protein receptor type II, BMP type II receptor, BMPR-II, BMPR2, PPH1

Dilution
WB~~1/500 - 1/2000
IHC~~1/500 - 1/2000
ICC~~N/A
E~~1/10000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
BMPR2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

BMPR2 Antibody - 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. Promotes signaling also by binding to activin A/INHBA (PubMed:24018044).

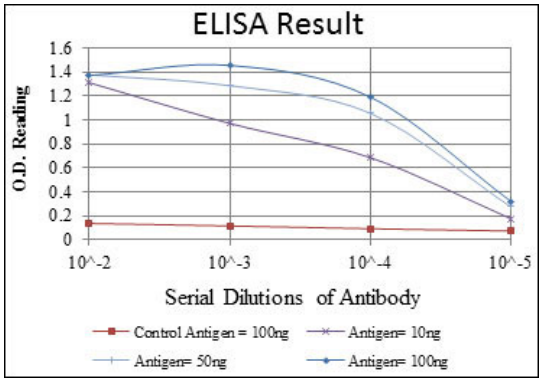
Cellular Location
Cell membrane; Single-pass type I membrane protein

Tissue Location
Highly expressed in heart and liver.

BMPR2 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



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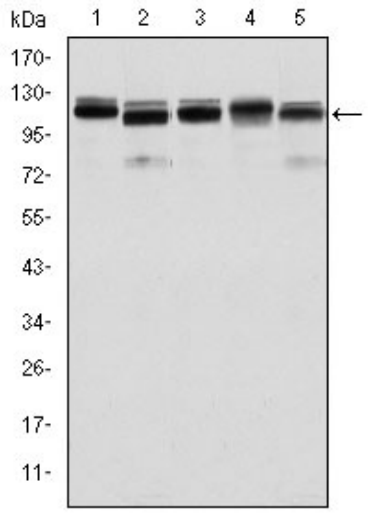

Figure 1: Western blot analysis using BMPR2 mouse mAb against Hela (1), A431 (2), NIH/3T3 (3), Cos7 (4) and PC-12 (5) cell lysate.

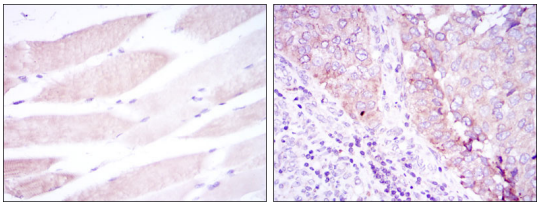

Figure 2: Immunohistochemical analysis of paraffin-embedded muscle tissues (left) and kidney cancer tissues (right) using BMPR2 mouse mAb with DAB staining.

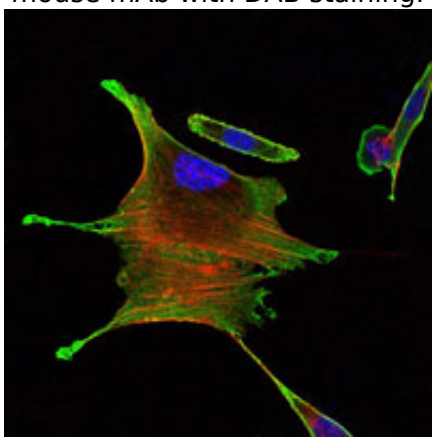

Figure 3: Immunofluorescence analysis of Eca109 cells using BMPR2 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

BMPR2 Antibody - References

1. J Heart Lung Transplant. 2008 Jun;27(6):668-74. 2. Genet Med. 2008 May;10(5):359-65.