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BMPR2 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1535a

Product Information

Application	WB, IHC, E
Primary Accession	Q13873
Reactivity	Human, Mouse, Rat, Monkey
Host	Mouse
Clonality	Monoclonal
Clone Names	1F12
Isotype	IgG1
Calculated MW	115201
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.

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~~1/200 - 1/1000 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.

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.

References

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

Images

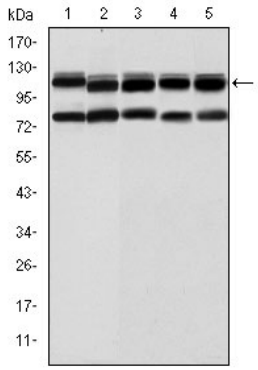


Figure 1: Western blot analysis using BMPR2 mouse mAb against Hela (1), A431 (2), NIH/3T3 (3), Cos7 (4) and PC-12 (5) cell lysate.

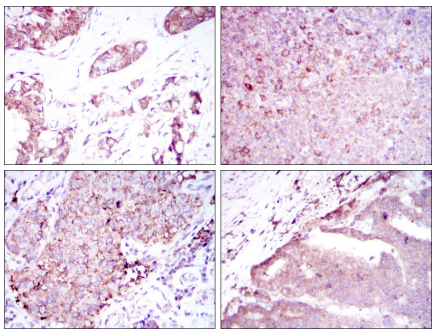


Figure 2: Immunohistochemical analysis of paraffin-embedded breast cancer tissues (left) and tonsil tissues (right) using BMPR2 mouse mAb with DAB staining.

Figure 3: Immunohistochemical analysis of paraffin-embedded kidney cancer tissues (left) and stomach cancer tissues (right) using BMPR2 mouse mAb with DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.