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BMPR2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2006b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q13873
Other Accession	O35607
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB1806
Calculated MW	115201
Antigen Region	27-56

Additional Information

Gene ID	659
Other Names	Bone morphogenetic protein receptor type-2, BMP type-2 receptor, BMPR-2, Bone morphogenetic protein receptor type II, BMP type II receptor, BMPR-II, BMPR2, PPH1
Target/Specificity	This BMPR2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 27~56 amino acids from the N-terminal region of human BMPR2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	BMPR2 Antibody (N-term) 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.

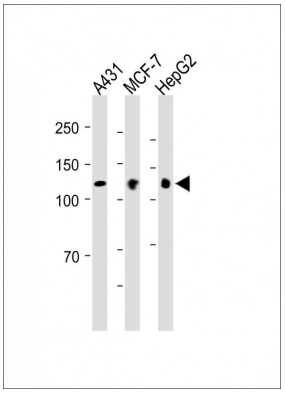
Background

BMPR2 is 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 2 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 BMPR2 have been associated with primary pulmonary hypertension.

References

Pouliot, F., et al., Cancer Res. 63(2):277-281 (2003).
Nishihara, A., et al., Mol. Biol. Cell 13(9):3055-3063 (2002).
Humbert, M., et al., Eur Respir J 20(3):518-523 (2002).
Vitt, U.A., et al., Biol. Reprod. 67(2):473-480 (2002).
Nohe, A., et al., J. Biol. Chem. 277(7):5330-5338 (2002).

Images



All lanes : Anti-BMPR2 Antibody (N-term) at 1:1000 dilution Lane 1: A431 whole cell lysate Lane 2: MCF-7 whole cell lysate Lane 3: HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 115kDa Blocking/Dilution buffer: 5% NFDM/TBST.