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BMPR2 Antibody

Store at -20C
#6979

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 150	Source/Isotype: Rabbit	UniProt ID: #Q13873	Entrez-Gene Id: 659
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

BMPR2 Antibody recognizes endogenous levels of total BMPR2 protein. This antibody may also detect a 115 Kd unspecific band.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys763 of human BMPR2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

BMPR2 is a type II serine/threonine receptor kinase that binds to an array of secreted bone morphogenetic proteins (BMPs). BMPs belong to the superfamily of TGF-β ligands that modulate gastrulation, neurogenesis, chondrogenesis, interdigital cell death, and bone morphogenesis (1-5). In contrast to the TGF-β type II receptor, BMPR2 contains an extended carboxyl-terminal region that interacts with multiple signaling molecules to modulate the responsiveness of target genes to BMPs (6,7). BMP signaling requires oligomerization of both type I and type II receptors to elicit a functional response of target genes. BMP binding to type I and II receptors induces Smad1/5/8 phosphorylation which is required for the activation of target genes (7). *In vitro* and *in vivo* evidence suggests that defects in BMPR2 may contribute to pulmonary hypertension, inflammation, and endothelial injury (8,9).

Background References

1. Storm, E.E. et al. (1994) *Nature* 368, 639-43.
2. Storm, E.E. and Kingsley, D.M. (1996) *Development* 122, 3969-79.
3. Reddi, H. (1995) *Adv Dent Res* 9, 13.
4. Zhang, H. and Bradley, A. (1996) *Development* 122, 2977-86.
5. Dunn, N.R. et al. (1997) *Dev Biol* 188, 235-47.
6. Kudo, T.A. et al. (2010) *Tohoku J Exp Med* 222, 121-9.
7. Gilboa, L. et al. (2000) *Mol Biol Cell* 11, 1023-35.
8. Machado, R.D. et al. (2001) *Am J Hum Genet* 68, 92-102.
9. Long, L. et al. (2009) *Circulation* 119, 566-76.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse

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