

BMPR2 Antibody

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

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

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

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no

force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.