Anti-BMPR1B Antibody

R1311-4

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 57kDa

Description: BMPR1B 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. The BMPR1B receptor plays a role in the formation of middle and proximal phalanges. Mutations in this gene have been associated with primary pulmonary hypertension. In the chick embryo, it has been shown that BMPR1B is found in precartilaginous condensations.

Immunogen: Recombinant protein within human BMPR1B aa 14-126.

Positive control: HepG2, SHG-44, human ovarian carcinoma tissue, mouse brain tissue.

Subcellular location: Cell membrane

Database links: SwissProt: O00238 Human | P36898 Mouse

Recommended Dilutions:

WB	1:1000
IHC-P	1:100-1:500
IF-Cell	1:200

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

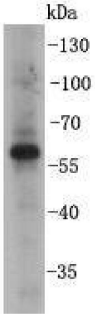

Fig1: Western blot analysis on SHG-44 cell lysates using anti-BMPR1B rabbit polyclonal antibodies.

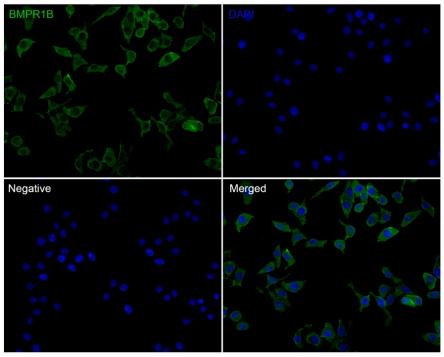

Fig2: Immunocytochemistry analysis of HepG2 cells labeling BMPR1B with Rabbit anti-BMPR1B antibody (R1311-4) at 1/200 dilution.

Cells were fixed in 4% paraformaldehyde for 10 minutes at 37 ℃, permeabilized with 0.05% Triton X-100 in PBS for 20 minutes, and then blocked with 2% negative goat serum for 30 minutes at room temperature. Cells were then incubated with Rabbit anti-BMPR1B antibody (R1311-4) at 1/200 dilution in 2% negative goat serum overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

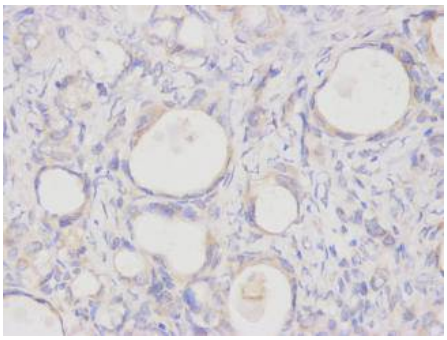

Fig3: Immunohistochemical analysis of paraffin-embedded human ovarian carcinoma tissue using anti- BMPR1B rabbit polyclonal antibody.

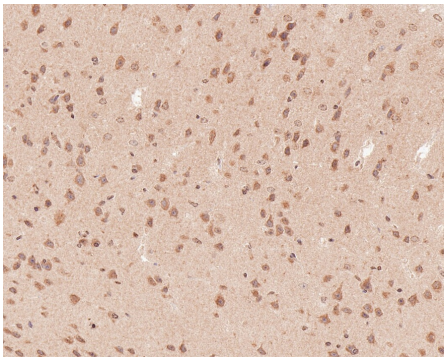

Fig4: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue with Rabbit anti-BMPR1B antibody (R1311-4) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (R1311-4) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. "A novel R486Q mutation in BMPR1B resulting in either a brachydactyly type C/symphalangism-like phenotype or brachydactyly type A2." Lehmann K., Seemann P., Boergermann J., Morin G., Reif S., Knaus P., Mundlos S. Eur. J. Hum. Genet. 14:1248-1254(2006)
2. "A homozygous BMPR1B mutation causes a new subtype of acromesomelic chondrodysplasia with genital anomalies." Demirhan O., Tuerkmen S., Schwabe G.C., Soyupak S., Akguel E., Tastemir D., Karahan D., Mundlos S., Lehmann K. J. Med. Genet. 42:314-317(2005)