

Anti-BMPR1B Antibody
Catalog # ABO11323

Specification

Anti-BMPR1B Antibody - Product Information

Application	WB
Primary Accession	O00238
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Bone morphogenetic protein receptor type-1B(BMPR1B) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-BMPR1B Antibody - Additional Information

Gene ID 658

Other Names

Bone morphogenetic protein receptor type-1B, BMP type-1B receptor, BMPR-1B, 2.7.11.30, CDw293, BMPR1B

Calculated MW

56930 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Membrane; Single-pass type I membrane protein.

Protein Name

Bone morphogenetic protein receptor type-1B

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence in the middle region of human BMPR1B(145-160aa FCYFRYKRQETRPYS), different from the related rat and mouse sequences by one amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. TGFB receptor subfamily.

Anti-BMPR1B Antibody - Protein Information

Name BMPR1B

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. Receptor for BMP7/OP-1 and GDF5. Positively regulates chondrocyte differentiation through GDF5 interaction.

Cellular Location

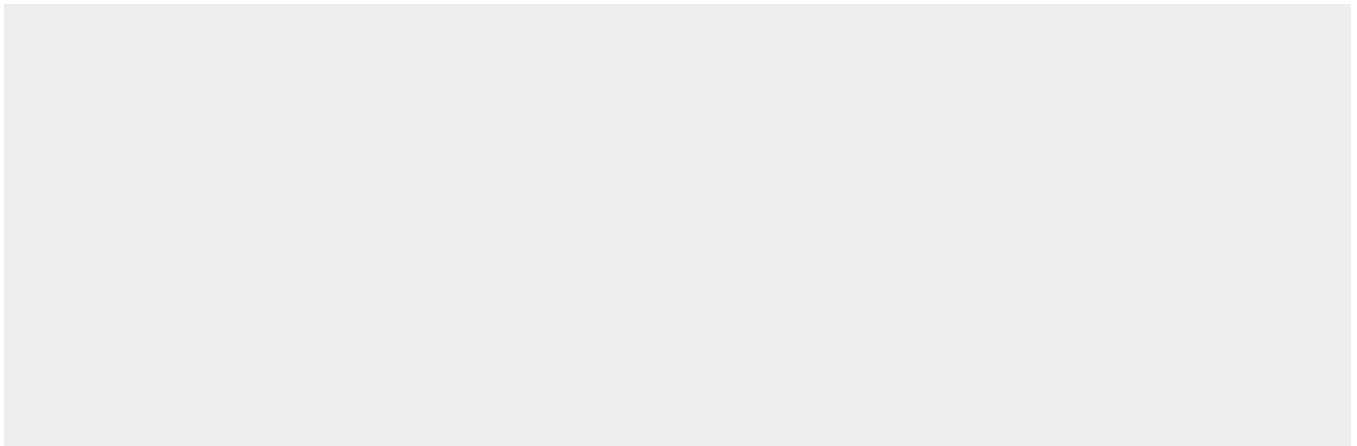
Cell membrane; Single-pass type I membrane protein

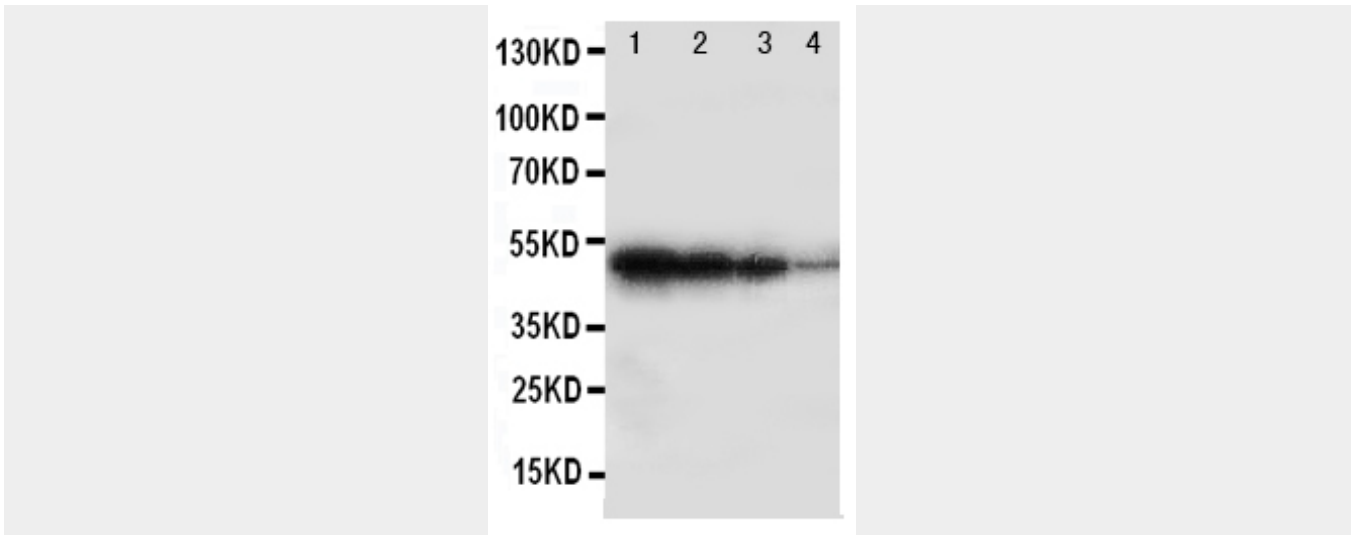
Anti-BMPR1B Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-BMPR1B Antibody - Images





Anti-BMPR1B antibody, ABO11323, Western blotting Recombinant Protein Detection Source: E.coli derived -recombinant Human BMPR1B, 49.0KD(162aa tag+D17-D289) Lane 1: Recombinant Human BMPR1B Protein 10ng Lane 2: Recombinant Human BMPR1B Protein 5ng Lane 3: Recombinant Human BMPR1B Protein 2.5ng Lane 4: Recombinant Human BMPR1B Protein 1.25ng

Anti-BMPR1B Antibody - Background

BMPR1B(Bone Morphogenetic Protein Receptor Type IB), also known as ALK6, is a protein which in humans is encoded by the BMPR1B gene. 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. 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. By analysis of a monochromosome hybrid mapping panel and by FISH, Astrom et al.(1999) mapped the BMPR1B gene to chromosome 4q22-q24. Ide et al.(1997) compared BMP receptor expression in normal and cancerous prostate tissues. While BMPR1A and BMPR2 were expressed at similar levels in all prostate tissues, BMPR1B was expressed at a significantly reduced level in cancerous prostate tissue.