abcam

Product datasheet

Recombinant human BMPR1B protein ab107949

4 Images

Description

Product name	Recombinant human BMPR1B protein
Biological activity	The Specific activity of ab107949 was determined to be 23 nmol/min/mg.
Purity	> 85 % SDS-PAGE. Purity was determined to be >85% by densitometry. Affinity purified.
Expression system	Baculovirus infected Sf9 cells
Accession	O00238
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Predicted molecular weight	68 kDa including tags
Amino acids	149 to 502

Specifications

Our **Abpromise guarantee** covers the use of **ab107949** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Western blot Functional Studies SDS-PAGE
Form	Liquid
Additional notes	**ab204884** (Smad3 peptide) can be utilized as a substrate for assessing kinase activity

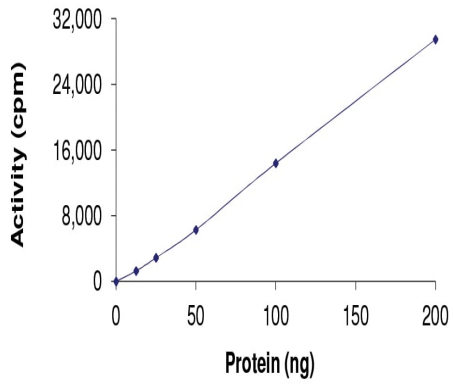
Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 7.50 Constituents: 0.307% Glutathione, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292% EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

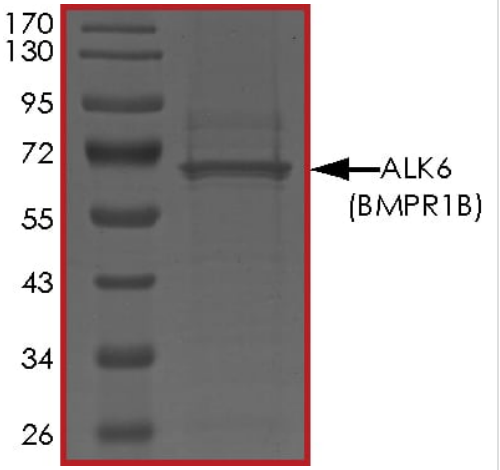
Function	On ligand binding, forms a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate SMAD transcriptional regulators. Receptor for BMP7/OP-1 and GDF5.
Involvement in disease	Defects in BMPR1B are the cause of acromesomelic chondrodysplasia with genital anomalies (AMDGA) [MIM:609441]. Acromesomelic chondrodysplasias are rare hereditary skeletal disorders characterized by short stature, very short limbs, and hand/foot malformations. The severity of limb abnormalities increases from proximal to distal with profoundly affected hands and feet showing brachydactyly and/or rudimentary fingers (knob-like fingers). Defects in BMPR1B are a cause of brachydactyly type A2 (BDA2) [MIM:112600]. Brachydactylies (BDs) are a group of inherited malformations characterized by shortening of the digits due to abnormal development of the phalanges and/or the metacarpals. They have been classified on an anatomic and genetic basis into five groups, A to E, including three subgroups (A1 to A3) that usually manifest as autosomal dominant traits. BDA2 was described first in a large Norwegian kindred. BDA2 is caused by mutations in BMPR1B gene and studies demonstrate that these mutations function as dominant negatives in vitro and in vivo.
Sequence similarities	Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. TGFB receptor subfamily. Contains 1 GS domain. Contains 1 protein kinase domain.
Cellular localization	Membrane.

Images



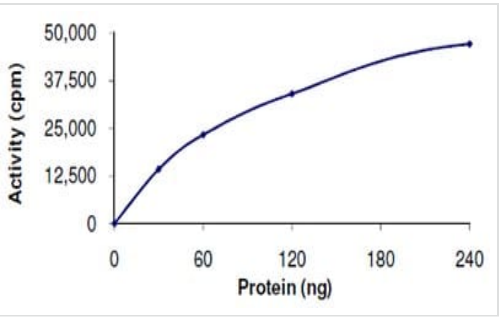
Functional Studies - Recombinant human BMPR1B protein (ab107949)

The specific activity of BMPR1B (ab107949) was determined to be 19 nmol/min/mg as per activity assay protocol



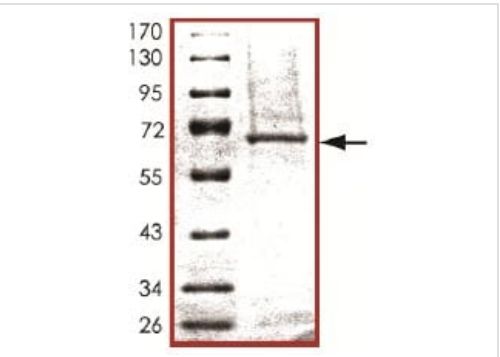
SDS-PAGE - Recombinant human BMPR1B protein (ab107949)

SDS PAGE analysis of ab107949



Functional Studies - Recombinant human BMPR1B protein (ab107949)

Kinase Assay demonstrating specific activity of ab107949.



SDS-PAGE - Recombinant human BMPR1B protein (ab107949)

SDS-PAGE showing ab107949 at approximately 68kDa.

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