

Product datasheet

Recombinant human BMPR1B protein ab107949

4 Images

Description

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

<b>Applications</b>	Western blot Functional Studies SDS-PAGE
<b>Form</b>	Liquid
<b>Additional notes</b>	<a href="#">ab204884</a> (Smad3 peptide) can be utilized as a substrate for assessing kinase activity

Preparation and Storage

<b>Stability and Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80°C. 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.
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## General Info

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### 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]. Brachydactyly (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.

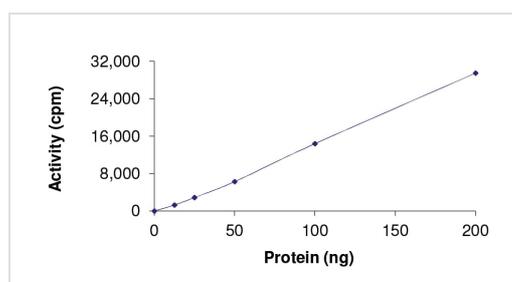
### Cellular localization

Membrane.

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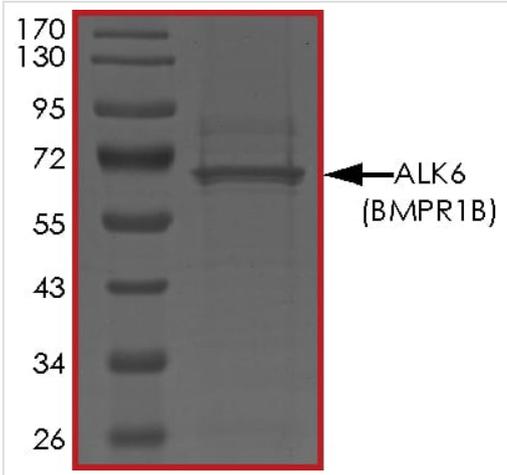
## Images

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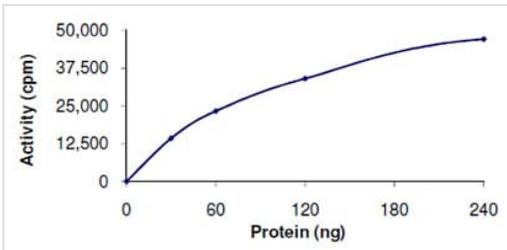
The specific activity of BMPR1B (ab107949) was determined to be 19 nmol/min/mg as per activity assay protocol

Functional Studies - Recombinant human BMPR1B protein (ab107949)



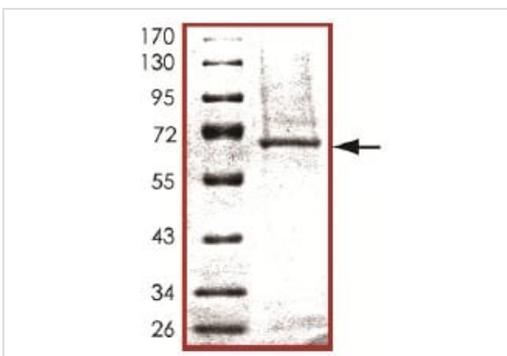
SDS PAGE analysis of ab107949

SDS-PAGE - Recombinant human BMPR1B protein (ab107949)



Kinase Assay demonstrating specific activity of ab107949.

Functional Studies - Recombinant human BMPR1B protein (ab107949)



SDS-PAGE showing ab107949 at approximately 68kDa.

SDS-PAGE - Recombinant human BMPR1B protein (ab107949)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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