

Product datasheet

Recombinant human BMPR2 protein ab126926

[5 Images](#)

Description

Product name	Recombinant human BMPR2 protein
Biological activity	The specific activity of ab126926 was determined to be 14 nmol/min/mg.
Purity	> 75 % Densitometry. Affinity purified.
Expression system	Baculovirus infected Sf9 cells
Accession	<u>Q13873</u>
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Predicted molecular weight	115 kDa including tags
Amino acids	174 to 1038
Tags	His tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab126926** in the following tested applications.

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

Applications	SDS-PAGE Functional Studies Western blot
Form	Liquid
Additional notes	<u>ab64311</u> (Myelin Basic Protein protein) 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 -80°C. Avoid freeze / thaw cycles. pH: 7.00 Preservative: 1.02% Imidazole
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Constituents: 0.002% PMSF, 0.81% Sodium phosphate, 0.0038% DTT, 25% Glycerol (glycerin, glycerine), 1.76% 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. Binds to BMP-7, BMP-2 and, less efficiently, BMP-4. Binding is weak but enhanced by the presence of type I receptors for BMPs.

Tissue specificity

Highly expressed in heart and liver.

Involvement in disease

Defects in *BMPR2* are the cause of primary pulmonary hypertension (PPH1) [MIM:178600]. PPH1 is a rare autosomal dominant disorder characterized by plexiform lesions of proliferating endothelial cells in pulmonary arterioles. The lesions lead to elevated pulmonary arterial pressure, right ventricular failure, and death. The disease can occur from infancy throughout life and it has a mean age at onset of 36 years. Penetrance is reduced. Although familial PPH1 is rare, cases secondary to known etiologies are more common and include those associated with the appetite-suppressant drugs.

Defects in *BMPR2* are a cause of pulmonary venoocclusive disease (PVOD) [MIM:265450]. PVOD is a rare form of pulmonary hypertension in which the vascular changes originate in the small pulmonary veins and venules. The pathogenesis is unknown and any link with PPH1 has been speculative. The finding of PVOD associated with a *BMPR2* mutation reveals a possible pathogenetic connection with PPH1.

Sequence similarities

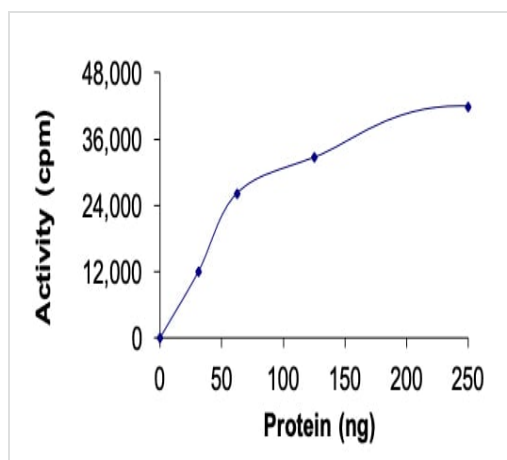
Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. TGF β receptor subfamily.

Contains 1 protein kinase domain.

Cellular localization

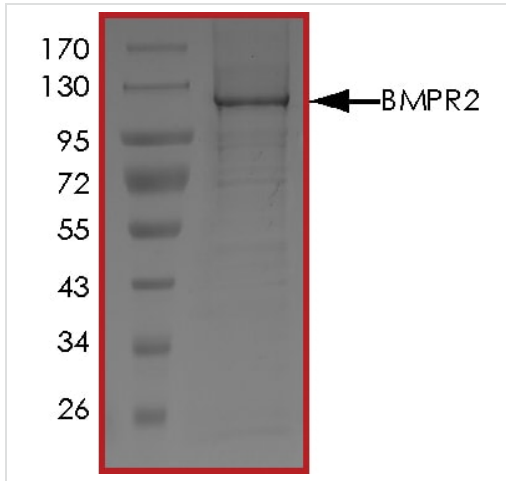
Membrane.

Images



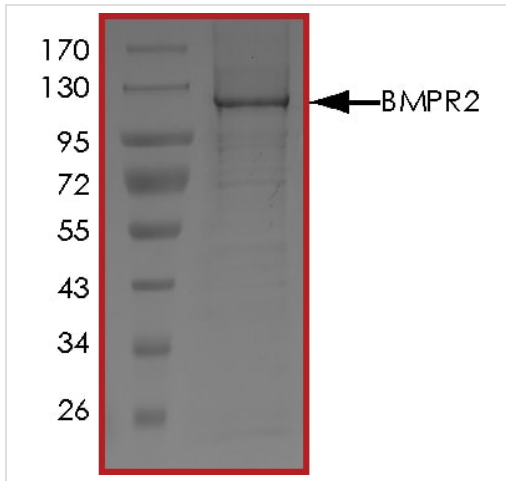
The specific activity of BMPR2 (ab126926) was determined to be 11.9 nmol/min/mg as per activity assay protocol

Functional Studies - Recombinant human BMPR2 protein (ab126926)



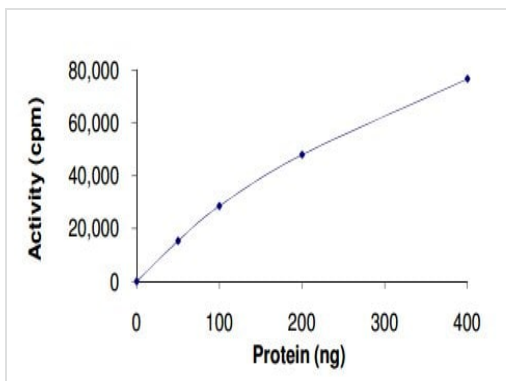
SDS-PAGE - Recombinant human BMPR2 protein (ab126926)

SDS PAGE analysis of ab126926



SDS-PAGE - Recombinant human BMPR2 protein (ab126926)

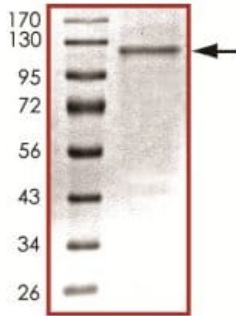
SDS PAGE analysis of ab126926



Functional Studies - Recombinant human BMPR2 protein (ab126926)

The specific activity of ab126926 was determined to be 14 nmol/min/mg.

SDS-PAGE analysis of ab126926.



SDS-PAGE - Recombinant human BMP2 protein
(ab126926)

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