abcam

Product datasheet

Recombinant Human BMPR2 protein (Tagged) ab186092

Description

Product name	Recombinant Human BMPR2 protein (Tagged)
Purity	> 95 % SDS-PAGE. ab186092 is greater than 95% pure, as determined by SEC-HPLC and reducing SDS-PAGE.
Endotoxin level	< 1.000 Eu/µg
Expression system	Mammalian
Accession	Q13873
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	SQNQERLCAFKDPYQQDLGIGESRISHENGTILCSKGSTCY GLWEKSKGD INLVKQGCWSHIGDPQECHYEECVVTTTPPSIQNGTYRFC CCSTDLCNVN FTENFPPPDTTPLSPPHSFNRDETIVDDIEGRMDEPKSCD KTHTCPPCPA PELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDP EVKFNWYVDG VEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYK CKVSNKALPAP IEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKG FYPSDIAVEW ESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQG NVFSCSVMHEA LHNHYTQKSLSLSPGKHHHHHH
Predicted molecular weight	42 kDa including tags
Amino acids	27 to 151
Tags	His tag C-Terminus , Fc tag C-Terminus
Additional sequence information	FC tag at C-Terminus. Extracellular domain.

Specifications

Our **Abpromise guarantee** covers the use of **ab186092** 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 HPLC
Form	Lyophilized

Preparation and Storage

Stability and Storage	Shipped at 4°C. The lyophilized protein is stable for a few weeks at room temperature. Store at -20°C or -80°C. Avoid freeze / thaw cycle. pH: 7.40 Constituent: 100% PBS 0.2 µM filtered solution.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 µg/ml. Dissolve the lyophilized protein in 3X PBS. Please aliquot the reconstituted solution.

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 pression, 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. TGFB receptor subfamily. Contains 1 protein kinase domain.
Cellular localization	Membrane.

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