Datasheet for ABIN5693167

anti-BMPR2 antibody (AA 455-512)

1 Image | 2 Publications

Go to Product page

Overview

Quantity:	100 µg
Target:	BMPR2
Binding Specificity:	AA 455-512
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This BMPR2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Purpose:	Anti-BMPR2 Antibody Picoband®
Immunogen:	E. coli-derived human BMPR2 recombinant protein (Position: R455-K512).
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins.
Characteristics:	Anti-BMPR2 Antibody Picoband® (ABIN5693167). Tested in ELISA, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.

Target Details

Target:	BMPR2
Alternative Name:	BMPR2 (BMPR2 Products)
Background:	Synonyms: Bone morphogenetic protein receptor type-2, BMP type-2 receptor, BMPR-2, Bone morphogenetic protein receptor type II, BMP type II receptor, BMPR-II, BMPR2, PPH1 Tissue Specificity: Highly expressed in heart and liver. Background: Bone morphogenetic protein receptor type II or BMPR2 is a serine/threonine receptor kinase. This gene encodes 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 two 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. Mutations in this gene have been associated with primary pulmonary hypertension, both familial and fenfluramine-associated, and with pulmonary venoocclusive disease.
Molecular Weight:	130 kDa
UniProt:	Q13873
Pathways:	Growth Factor Binding

Application Details

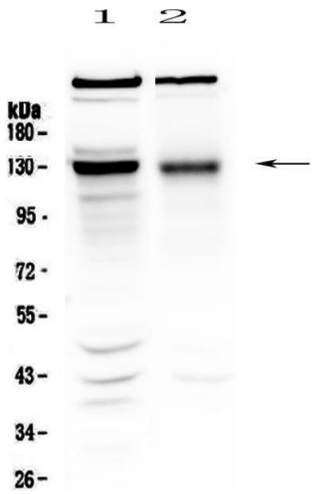
Application Notes:	Western blot, 0.1-0.5 µg/mL ELISA, 0.1-0.5 µg/mL 1. Aldred, M. A., Vijayakrishnan, J., James, V., Soubrier, F., Gomez-Sanchez, M. A., Martensson, G., Galie, N., Manes, A., Corris, P., Simonneau, G., Humbert, M., Morrell, N. W., Trembath, R. C. BMPR2 gene rearrangements account for a significant proportion of mutations in familial and idiopathic pulmonary arterial hypertension. (Abstract) Hum. Mutat. 27: 212-213, 2006. 2. Machado, R. D., Pauciulo, M. W., Thomson, J. R., Lane, K. B., Morgan, N. V., Wheeler, L., Phillips, J. A., III, Newman, J., Williams, D., Galie, N., Manes, A., McNeil, K., and 11 others.BMPR2 haploinsufficiency as the inherited molecular mechanism for primary pulmonary hypertension. Am. J. Hum. Genet. 68: 92-102, 2001.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na_2HPO_4, 0.05 mg NaN_3.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Publications

Product cited in:	Hanusek, Rybicka, Popławski, Adamiok-Ostrowska, Głuchowska, Piekiełko-Witkowska, Bogusławska: "TGF-β1 affects the renal cancer miRNome and regulates tumor cells proliferation." in: **International journal of molecular medicine**, Vol. 49, Issue 4, (2022) (PubMed). Liu, Zhong, Yuan, Chen, Zhou, An, Guo, Fan, Li, Sun, Li, Shi, Weng: "MicroRNA-155 inhibits the osteogenic differentiation of mesenchymal stem cells induced by BMP9 via downregulation of BMP signaling pathway." in: **International journal of molecular medicine**, Vol. 41, Issue 6, pp. 3379-3393, (2018) (PubMed).



Western Blotting

Image 1. Western blot analysis of BMPR2 using anti-BMPR2 antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat brain tissue lysate, Lane 2: mouse brain tissue lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-BMPR2 antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for BMPR2 at approximately 130KD. The expected band size for BMPR2 is at 115KD.