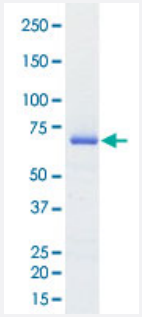
Bioactive

ACVR2B (Human) Recombinant Protein

Catalog # P5490 Size 5 ug

Applications



Result of activity analysis

Result of activity analysis

Specification

Product Description	Human ACVR2B (NP_001097.2, 161 a.a. - 512 a.a.) partial recombinant protein with GST tag expressed in baculovirus infected Sf21 cells.
Host	insect
Theoretical MW (kDa)	67
Form	Liquid
Preparation Method	Baculovirus infected insect cell (Sf21) expression system
Purification	Glutathione sepharose chromatography
Purity	94 % by SDS-PAGE/CBB staining

Activity	The activity was determined by ELISA. The enzyme was incubated with biotinylated substrate protein , and after stopping kinase reaction by EDTA, the reaction solution was transferred into streptavidin-coated plate. Phosphorylation was detected by anti-phospho antibody and HRP-labeled anti-rabbit Ig G. Substrate: ALK4 inactive mutant. ATP: 100 uM.
Quality Control Testing	Loading 1 ug protein in SDS-PAGE
Storage Buffer	In 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 (0.1% CHAPS, 1 mM DTT, 10% glycerol)
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of activity analysis Result of activity analysis

Applications

- Functional Study
- SDS-PAGE

Gene Info — ACVR2B

Entrez GeneID	93
Protein Accession#	NP_001097.2
Gene Name	ACVR2B
Gene Alias	ACTRIIB, ActR-IIB, MGC116908
Gene Description	activin A receptor, type IIB
Omim ID	602730
Gene Ontology	Hyperlink

Gene Summary	Activins are dimeric growth and differentiation factors which belong to the transforming growth factor-beta (TGF-beta) superfamily of structurally related signaling proteins. Activins signal through a heteromeric complex of receptor serine kinases which include at least two type I (I and IB) and two type II (II and IIB) receptors. These receptors are all transmembrane proteins, composed of a ligand-binding extracellular domain with cysteine-rich region, a transmembrane domain, and a cytoplasmic domain with predicted serine/threonine specificity. Type I receptors are essential for signaling; and type II receptors are required for binding ligands and for expression of type I receptors. Type I and II receptors form a stable complex after ligand binding, resulting in phosphorylation of type I receptors by type II receptors. Type II receptors are considered to be constitutively active kinases. This gene encodes activin A type IIB receptor, which displays a 3- to 4-fold higher affinity for the ligand than activin A type II receptor. [provided by RefSeq
Other Designations	activin A type IIB receptor

Pathway

- Cytokine-cytokine receptor interaction
- TGF-beta signaling pathway

Disease

- Genetic Predisposition to Disease
- Hyperparathyroidism
- Obesity
- Ovarian Failure
- Polycystic Ovary Syndrome
- Puberty
- Thrombophilia
- Tobacco Use Disorder