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Datasheet for ABIN7519656

Activin A Receptor Type IB/ALK-4 Protein (Fc Tag,His tag)

Overview

Quantity:	100 µg
Target:	Activin A Receptor Type IB/ALK-4 (ACVR1B)
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This Activin A Receptor Type IB/ALK-4 protein is labelled with Fc Tag,His tag.

Product Details

Purpose:	Active Recombinant Human ALK-4/ACVR1B Protein
Sequence:	MAESAGASSF FPLVLLLAG SGGSGPRGVQ ALLCACTSCL QANYTCETDG ACMVSIFNLD GMEHHVRTCI PKVELVPAGK PFYCLSSIDL RNTHCCYTDY CNRIDLRVPS GHLKEPEHPS MWGPVE
Specificity:	Met1-Glu126
Purity:	> 97 % by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	< 0.1 EU/µg of the protein by LAL method.
Biological Activity Comment:	Measured by its binding ability in a functional ELISA. Immobilized Human ACVR1B at 0.5 µg/mL (100 µL/well) can bind Human ACVR2B with a linear range of 2.0-286.1 ng/mL.

Target Details

Target: Activin A Receptor Type IB/ALK-4 (ACVR1B)

Alternative Name: ALK-4/ACVR1B ([ACVR1B Products](#))

Background: Description: ALK-4 (Activin Receptor-Like Kinase 4) or ACVR1B (Activin A Receptor, type 1B), belongs to the protein kinase superfamily, TKL Ser/Thr protein kinase family, and TGFB receptor subfamily. ALK-4/ACVR1B acts as a transducer of activin or activin like ligands signals. Activin binds to either ACVR2A or ACVR2B and then forms a complex with ACVR1B. The known type II activin receptors include ActRII and ActRIIB, while the main type I activin receptor in mammalian cells is ALK-4 (ActRIB). In the presence of activin, type II and type I receptors form complexes whereby the type II receptors activate ALK-4 through phosphorylation. The activated ALK-4, in turn, transduces signals downstream by phosphorylation of its effectors, such as Smads, to regulate gene expression and affect cellular phenotype. ALK-4/ACVR1B is an important regulator of vertebrate development, with roles in mesoderm induction, primitive streak formation, gastrulation, dorsoanterior patterning, and left-right axis determination.

Name: ACTRIB, ACVRLK4, ALK4, SKR2, ACVR1B, ACVRLK4, ALK4, SKR2

Gene ID: 91

UniProt: [P36896-1](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1 % BSA, 5 % HSA, 10 % FBS or 5 % Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Buffer: Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.

Storage: -20 °C, -80 °C

Storage Comment: Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week.