

Human ALK4/ACVR1B Protein (Fc Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 10583-H02H

General Information

Gene Name Synonym:

ACTRIB; ACVRLK4; ALK4; SKR2

Protein Construction:

A DNA sequence encoding the human ACVR1B (NP_004293.1) (Met1-Glu126) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE.

Bio-activity:

Measured by its binding ability in a functional ELISA. Immobilized human TDGF1-His (Cat:10908-H08H) at 10 µg/mL (100 µL/well) can bind ACVR1B-Fc (Cat:10583-H02H), the EC₅₀ of human ACVR1B-Fc (Cat:10583-H02H) is 3-20 ng/mL.

Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ser 24

Molecular Mass:

The recombinant human ACVR1B consists of 341 amino acids and predicts a molecular mass of 38.1 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

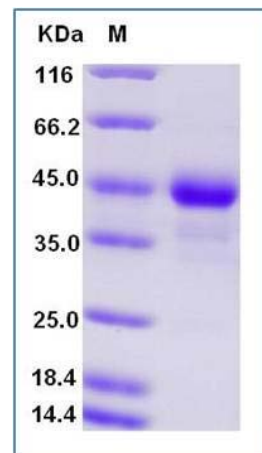
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein 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.

References

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

For US Customer: Fax: 267-657-0217

● **Tel: 215-583-7898**

Global Customer: Fax :+86-10-5862-8288

● **Tel:+86-400-890-9989**

● <http://www.sinobiological.com>