

# Recombinant Rat ALK-1/ACVRL1 Protein

Catalog No.: RP01925 **Recombinant**

## Sequence Information

<b>Species</b>	<b>Gene ID</b>	<b>Swiss Prot</b>
Rat	25237	P80203

### Tags

C-hFc

### Synonyms

Acvrl1; Acvrlk1; Serine/threonine-protein kinase receptor R3; SKR3; 2.7.11.30; TGF-B superfamily receptor type I; TSR-I

## Product Information

<b>Source</b>	<b>Purification</b>
HEK293 cells	> 90% by SDS-PAGE.

<b>Calculated MW</b>	<b>Observed MW</b>
36.97 kDa	45-60 kDa

### Endotoxin

< 0.01EU/ $\mu$ g of the protein by LAL method

### Formulation

Lyophilized from 0.22  $\mu$ m filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

### 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.

## Contact

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## Background

ALK-1/ACVRL1, Type I receptor for TGF-beta family ligands BMP9/GDF2 and BMP10 and important regulator of normal blood vessel development. 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. May bind activin as well.

## Basic Information

### Description

Recombinant Recombinant Rat ALK-1/ACVRL1 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Lys21-Ala118) of Rat ALK-1/ACVRL1 (Accession #NP\_071886.1) fused with a hFc tag at the C-terminus.

### Bio-Activity

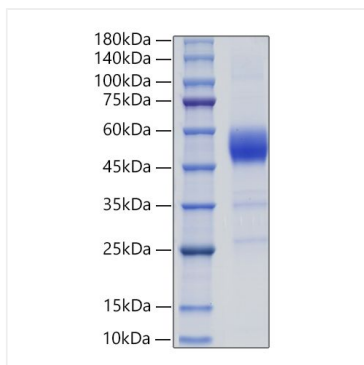
Measured by its binding ability in a functional ELISA. Immobilized Rat ALK-1 (Catalog #RP01925) at 4  $\mu$ g/mL (100  $\mu$ L/well) can bind Human ACVR2B (Catalog #RP00153) with a linear range of 20-989.42 ng/mL.

### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80°C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

## Validation Data

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Recombinant Rat ALK-1/ACVRL1 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 45-60 kDa.