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# ACVRL1
# Recombinant Human ALK-1 / ACVRL1 (Fc Tag)

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|---|---|---|---|
| **Catalog No.** | CRH389A-Fc<br>CRH389B-Fc | **Quantity:** | 100 µg<br>200 µg |

**Alternate Names:** Serine/threonine-protein kinase receptor R3, SKR3, Activin receptor-like kinase 1, ALK-1, TGF-B superfamily receptor type I, TSR-I

**Description:** Activin A receptor, type II-like 1 (ACVRL1), also known as ALK-1 (activin receptor-like kinase 1), is an endothelial-specific type I receptor of the TGF-beta (transforming growth factor beta) receptor family of ligands. On ligand binding, a heteromeric receptor complex forms consisting of two type II and two type I transmembrane serine/threonine kinases. ACVRL1 protein is expressed in certain blood vessels of kidney, spleen, heart and intestine, serving as an important role during vascular development. Mutations in ACVRL1 gene are associated with hemorrhagic telangiectasia type 2, also known as Rendu-Osler-Weber syndrome 2 and vascular disease.

**UniProt ID:** P37023

**Accession Number:** NP_000011.2

**Protein Construction:** A DNA sequence encoding the N-terminal segment (Met 1-Gln 118) of the extracellular domain of human ALK1 (NP_000011.2) pro-protein was fused with the Fc region of human IgG1 at the C-terminus.

**Source:** HEK293 Cells

**Formulation:** Lyophilized from sterile PBS, pH 7.4
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

**Molecular Weight:** The mature recombinant human ALK1/Fc chimera is a disulfide-linked homodimeric protein. The reduced monomer comprises 335 amino acids and has a predicted molecular mass of 37.4 kDa. As a result of glycosylation, the recombinant monomer migrates as an approximately 45-50 kDa protein in SDS-PAGE under reducing conditions.

**Purity:** > 97 % as determined by SDS-PAGE.

**Endotoxin Level:** < 1.0 EU per µg of the protein as determined by the LAL method

**Biological Activity:** 1. Measured by its ability to bind Human ENG-Fc, latent TGFB1-His, or mouse ENG-His in a functional ELISA.
2. Measured by its ability to inhibit BMP9 induced alkaline phosphatase production by MC3T3E1 mouse chondrogenic cells.The ED50 for this effect is typically 5-15 ng/mL in the presence of 2 ng/mL of recombiant human BMP9.

**Predicted N-terminal:** Asp 22

**Reconstitution:** **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial.
**DO NOT VORTEX**. Allow several minutes for complete reconstitution.

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**Storage & Stability:** Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.
**Avoid repeated freeze-thaw cycles.**

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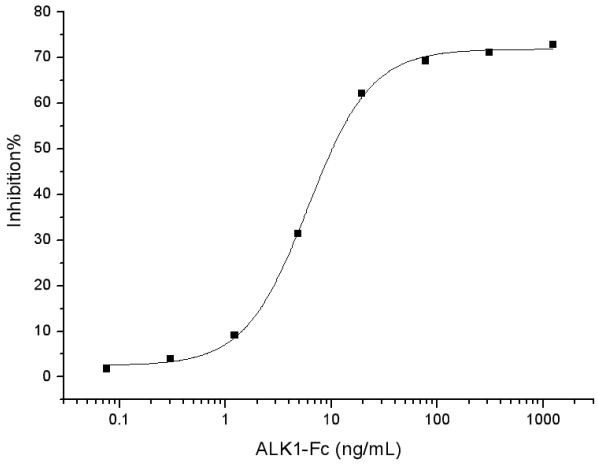
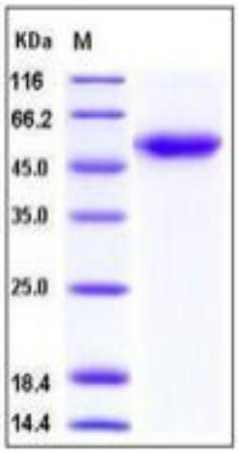



SDS-PAGE

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