Cynomolgus ALK-1 / ACVRL1 Protein (Fc Tag)

Catalog Number: **90060-C02H**

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Biological Solution Specialist

General Information

Gene Name Synonym:

ACVRLK1; ALK-1; ALK1; HHT; HHT2; ORW2; SKR3; TSR-I; Acvrlk1; AI115505; AI427544; Alk1

Protein Construction:

A DNA sequence encoding the cynomolgus ACVRL1 (Met1-Gln118) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Cynomolgus

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to inhibit BMP9-induced alkaline phosphatase production by MC3T3-E1 cells. The ED_{50} for this effect is typically 1-5 ng/ml.

Endotoxin:

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

Stability:

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

Predicted N terminal: Asp 22

Molecular Mass:

The recombinant cynomolgus ACVRL1 is a disulfide-linked homodimer. The reduced monomer comprises 338 amino acids and has a calculated molecular mass of 37.8 KDa.The apparent molecular mass of the protein is approximately 53 KDa respectively in SDS-PAGE.

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:

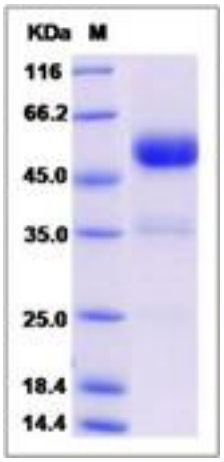
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

1.French Rendu-Osler network,*et al.* (2004) Molecular screening of ALK1/ACVRL1 and ENG genes in hereditary hemorrhagic telangiectasia in France. Hum Mutat. 23(4): 289-299.
2.Simon M, *et al.* (2006) Association of a polymorphism of the ACVRL1 gene with sporadic arteriovenous malformations of the central nervous system. J Neurosurg. 104(6): 945-9.
3.Argyriou L, *et al.* (2006) Novel mutations in the ENG and ACVRL1 genes causing hereditary hemorrhagic teleangiectasia. Int J Mol Med. 17(4):655-9.