

Recombinant Human Activin A Receptor Type II-Like 1

Cat. No. ACVRL1-483H Lot. No. (See product label)

SPECIFICATION

Species Human

Source Mammalian Cells

Description

Activin A receptor type II-like 1, also known as ACVRL1, is a human gene. ACVRL1 is a receptor in the TGF beta signaling pathway. It is also known as "activin receptor-like kinase 1", or "ALK1". This gene encodes a type I cell-surface receptor for the TGF-beta superfamily of ligands. It shares with other type I receptors a high degree of similarity in serine-threonine kinase subdomains, a glycine- and serine-rich region (called the GS domain) preceding the kinase domain, and a short C-terminal tail. The encoded protein, sometimes termed ALK1, shares similar domain structures with other closely related ALK or activin receptor-like kinase proteins that form a subfamily of receptor serine/threonine kinases. Mutations in this gene are associated with hemorrhagic telangiectasia type 2, also known as Rendu-Osler-Weber syndrome 2 suggesting a critical role for ALK-1 in the control of blood vessel development or repair.

Molecular Weight

The predicted molecular weight of Recombinant Human ALK-1 is Mr 37.3 kDa. However, the actual molecular weight as observed by migration on SDS Page is Mr 50-55 kDa.

State Of Matter

Lyophilized.

Purity

> 90% by SDS Page and analyzed by silver stain.

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Endotoxin < 1.0 EU/g as determined by the LAL method.

Storage And Stability

This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles. See Product Insert for exact lot specific storage instructions.

GENE INFORMATION

Gene Name [ACVRL1 activin A receptor type II-like 1 \[Homo sapiens \]](#)

Synonyms

ACVRL1; activin A receptor type II-like 1; HHT; ALK1; HHT2; ORW2; SKR3; ALK-1; TSR-I; ACVRLK1; activin A receptor type II-like 1; TGF-B superfamily receptor type I; activin A receptor, type II-like kinase 1; serine/threonine-protein kinase receptor R3; EC 2.7.11.30

Gene ID [94](#)

mRNA Refseq [NM_000020](#)

Protein Refseq [NP_000011](#)

UniProt ID [P37023](#)

Chromosome Location 12q11-q14

MIM [601284](#)

Pathway Cytokine-cytokine receptor interaction; TGF-beta signaling pathway

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Function

ATP binding; SMAD binding; activin receptor activity, type I; magnesium ion binding; nucleotide binding; receptor activity; transferase activity; transforming growth factor beta binding

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