Recombinant Human Activin A Receptor Type II-Like 1

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

SPECIFICATION

Product Overview	
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.

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Purity	> 90% by SDS Page and analyzed by silver stain.
Endotoxin	< 1.0 EU/μg 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

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