

Recombinant Human Activin A Receptor, Type I

Cat. No. ACVR1-1583H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species Human

Source Mammalian Cells

Description

The Activin type I receptors transduce signals for a variety of members of the Transforming growth factor beta superfamily of ligands. This family of cytokines and hormones include activin, Anti-müllerian hormone (AMH), bone morphogenetic proteins (BMPs), and Nodal. They are involved in a host of physiological processes including, growth, cell differentiation, homeostasis, osteogenesis, apoptosis and many other functions. There are three type I Activin receptors: ACVR1, ACVR1B, and ACVR1C. Activin isoforms and other members of the TGF- β superfamily exert their biological effects by binding to heteromeric complexes of a type I and a type II serine-threonine kinase receptor, both of which are essential for signal transduction. To date, seven type I and five type II receptors, including the two type I and the two type II activin receptors, designated ActR-I(A), ActR-IB, ActR-II(A) and ActR-IIB, have been cloned from mammals.

State Of Matter Lyophilized.

Purity >95% by SDS Page and analyzed by silver stain.

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

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Molecular Weight The predicted molecular weight of Recombinant Human Activin RIA is Mr 39 kDa. However, the actual molecular weight as observed by migration on SDS Page is Mr 40-45 kDa.

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.

GENE INFORMATION

Gene Name [ACVR1 activin A receptor, type I \[Homo sapiens \]](#)

Synonyms ACVR1; activin A receptor, type I; FOP; ALK2; SKR1; TSRI; ACTRI; ACVR1A; ACVRLK2; OTTHUMP00000204604; OTT HUMP000002 04626; hydroxyalkyl-protein kinase; TGF-B superfamily receptor type I; activin A receptor, type II-like kinase 2; serine/threonine-protein kinase receptor R1; EC 2.7.11.30

Gene ID [90](#)

mRNA Refseq [NM_001105](#)

Protein Refseq [NP_001096](#)

MIM [102576](#)

UniProt ID Q04771

Chromosome Location 2q23-q24

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Pathway	Cytokine-cytokine receptor interaction; TGF-beta signaling pathway
Function	ATP binding; SMAD binding; activin binding; activin receptor activity, type I; follistatin binding; gnesium ion binding; manganese ion binding; nucleotide binding; protein homodimerization activity; receptor activity; transferase activity; transforming growth factor beta binding

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