

Recombinant Human Activin A Receptor, Type I

Cat. No. ACVR1-2595H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human Activin A Receptor, Type I is expressed in <i>BTI-Tn-5B1-4 cells</i> .
Species	Human
Source	BTI Insect Cell
Description	Activin A is a TGF- β family member that exhibits a wide range of biological activities including regulation of embryogenesis, osteogenesis, hematopoiesis, reproductive physiology and hormone secretion from the hypothalamic, pituitary and gonadal glands. Activin B, like certain other members of the TGF- β family, signals through the ActRII receptor (Activin Receptor type II). Human Activin B is a 25.6 kDa disulfide-linked homodimer consisting of two β B chains, each containing 115 amino acid residues.
Purity	Greater than 98% (determined by SDS-PAGE and HPLC analysis).
Molecular Mass	25.6 kDa.
Specific Activity	$\geq 5 \times 10^5$ IU/mg.
Endotoxin Level	< 0.1 ng per μ g of rHu Activin A (1 EU/ μ g).
Biological Activity	The ED ₅₀ as determined by its ability to inhibit the proliferation of murine MPC-11 cells is < 2 ng/ml, corresponding to a specific activity of > 5 x 10 ⁵ units/mg.

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Formulation	Lyophilized from a sterile-filtered solution with no additives.
Reconstitution	Please Note: Always centrifuge product briefly before opening vial. The lyophilized protein should be reconstituted in sterile, ultra-pure water to a concentration of 0.1-1.0 mg/ml. This solution can then be diluted into other aqueous buffers and stored at -20°C for future use.
Storage	The lyophilized protein, though stable at room temperature for up to 3 weeks, is best stored desiccated at -20°C. Reconstituted rHu Activin B should be used immediately or stored long-term in undiluted working aliquots at -20°C. 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

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Chromosome Location	2q23-q24
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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