Recombinant Human Activin A Receptor, Type IB

Cat. No. ACVR1B-2596H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Activin A Receptor, Type IB is expressed in BTI-Tn-5B1-4 cells.
Species	Human
Source	BTI Insect Cell
Description	Activin B 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 βB 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	≥5 x 10^5IU/mg.
Endotoxin Level	< 0.1 ng per μg of rHu Activin B (1 EU/μg).
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 10^5units/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	ACVR1B activin A receptor, type IB [Homo sapiens]
Synonyms	ACVR1B; activin A receptor, type IB; ALK4; SKR2; ACTRIB; ACVRLK4; activin receptor-like kinase 4; activin A receptor, type II-like kinase 4; serine(threonine) protein kinase receptor R2; ACTR-IB; ALK-4; ActRIB; EC 2.7.11.30; Activin receptor-like kinase 4; Serine/threonine-protein kinase receptor R2; activin A type IB receptor
Gene ID	91
mRNA Refseq	NM_004302
Protein Refseq	NP_004293
MIM	601300
UniProt ID	P36896

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Chromosome Location	12q13
Pathway	Adherens junction; Chronic myeloid leukemia; Colorectal cancer; Cytokine-cytokine receptor interaction; Endocytosis; MAPK signaling pathway; Pancreatic cancer; Pathways in cancer; TGF-beta signaling pathway
Function	ATP binding; SMAD binding; activin binding; activin receptor activity, type I; growth factor binding; magnesium ion binding; manganese ion binding; nucleotide binding; protein serine/threonine kinase activity; receptor activity; transferase activity; ubiquitin protein ligase binding
PDB rendering based on 1rw8.	

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