Recombinant Human Activin ACVR1B protein, Fc-tagged

Cat. No. ACVR1B-332H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ACVR1B protein (Ser24-Glu126), fused to human IgG1 Fc tag at C-terminus, was expressed in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	103
Description	Activin receptor type-1B (ACVR1B) is also known as Activin receptor-like kinase 4 (ALK-4), Serine/threonine-protein kinase receptor R2 (SKR2), which belongs to the protein kinase superfamily, TKL Ser/Thr protein kinase family and TGFB receptor subfamily. ACVR1B contains one GS domain and one protein kinase domain. The catalytic activity of ACVR1B is "ATP + [receptor-protein] = ADP + [receptor-protein] phosphate". ACVR1B acts as a transducer of activin or activin like ligands (e.g., inhibin) signals. Activin binds to either ACVR2A or ACVR2B and then forms a complex with ACVR1B. These go on to recruit the R-SMADs SMAD2 or SMAD3. ACVR1B also transduces signals of nodal, GDF-1, and Vg1.
Form	Lyophilized from 0.22 um filtered solution in 50 mM Tris, 100 mM Glycine, pH7.5, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 38.1 kDa. As a result of glycosylation, the protein migrates as 43-46 kDa under reducing (R) condition, and 85-90 kDa under non-reducing (NR) condition (SDS-PAGE).

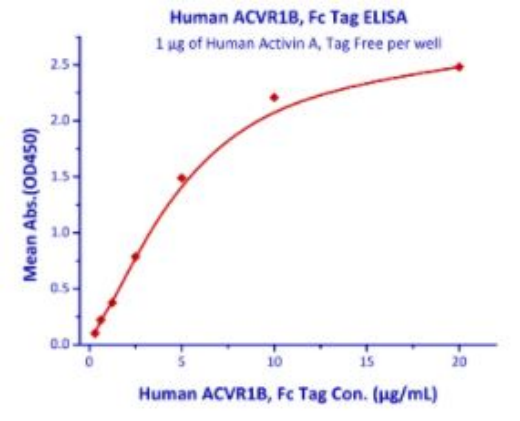
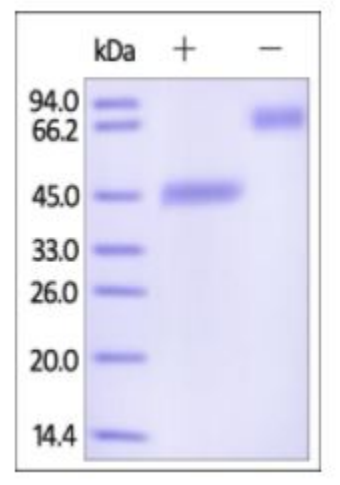
Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Endotoxin	Less than 1.0 EU per ug by the LAL method.
Purity	>92% as determined by SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 centigrade to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4℃ before opening to recover the entire contents.

GENE INFORMATION

Gene Name	ACVR1B
Official Symbol	ACVR1B
Synonyms	ACVR1B; activin A receptor, type IB; ACVRLK4; activin receptor type-1B; ActRIB; ALK4; SKR2; activin receptor-like kinase 4; activin A receptor, type II-like kinase 4; serine/threonine-protein kinase receptor R2; ACTRIB
Gene ID	91
mRNA Refseq	NM_004302
Protein Refseq	NP_004293
MIM	601300

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UniProt ID	P36896
Bioactivity-ELISA of ACVR1B-332H	 Immobilized Human Activin A, Tag Free at 10μg/mL (100 μL/well) can bind Human ACVR1B, Fc Tag with a linear range of 0.3-2.5 μg/mL (QC tested).
SDS-PAGE of ACVR1B-332H	 Human ACVR1B, Fc Tag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the

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	protein is greater than 92%.

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