Active Recombinant Human ACVR1(R206H), GST-tagged

Cat. No. ACVR1-201H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human ALK2 (R206H) (147-end) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species	Human
Source	Sf9 Cells
ProteinLength	147-end a.a.
Description	ALK2 belong to the transforming growth factor-beta (TGF-beta) superfamily of structurally related signaling proteins which encodes activin A type I receptor. ALK2 signals a particular transcriptional response in concert with activin type II receptors. Mutations in ALK2 are associated with fibrodysplasia ossificans progressiva (FOP) and the mutations are located in or adjacent to the GS regulatory region or active site of the kinase. The mutations in ALK2 were predicted by protein structure homology modeling to activate the ALK2 protein and enhance receptor signaling. Dysregulated ALK2 kinase activity plays a role in the pathogenesis of FOP.
Form	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Bio-activity	The specific activity of ALK2(R206H) was determined to be 6 nmol /min/mg
Molecular Mass	~67 kDa

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

Purity	>95% by densitometry
Applications	Kinase Assay, Western Blot
Storage	Store product at –70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Concentration	0.1 μg/μl

GENE INFORMATION

Gene Name	ACVR1 activin A receptor, type I [Homo sapiens]
Official Symbol	ACVR1
Synonyms	ACVR1; activin A receptor, type I; ACVRLK2; activin receptor type-1; ACVR1A; ALK2; SKR1; activin receptor type I; hydroxyalkyl-protein kinase; activin receptor-like kinase 2; TGF-B superfamily receptor type I; activin A receptor, type II-like kinase 2; serine/threonine-protein kinase receptor R1; FOP; TSRI; ACTRI;
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	ALK1 pathway, organism-specific biosystem; ALK1 signaling events, organism-specific biosystem; ALK2 signaling events, organism-specific biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; TGF-beta signaling pathway, organism-specific biosystem; TGF-beta signaling pathway, conserved biosystem;
Function	ATP binding; SMAD binding; activin binding; contributes_to activin receptor activity, type I; follistatin binding; metal ion binding; nucleotide binding; protein binding; protein homodimerization activity; protein serine/threonine kinase activity; receptor activity; receptor signaling protein serine/threonine kinase activity; transforming growth factor beta binding; transforming growth factor beta receptor activity, type I; transmembrane receptor protein serine/threonine kinase activity;

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