Recombinant Human ALK2 (Q207E), GST-tagged

Cat. No. ACVR1-33H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human ALK2 (Q207E) (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	ALK 2 is a receptor serine/threonine kinase that is member of the ALK family and is upstream of signaling pathway involving the SMAD proteins especially SMAD1/5/8. Knockdown of ALK2, but not TGFβRI (ALK5), abrogates endoglin-mediated decrease in cell motility of prostate cancer cells and constitutively active ALK2 is sufficient to restore a low-motility phenotype in endoglin deficient cells. Therefore, endoglin decreases prostate cancer cell motility through activation of the ALK2-Smad1 pathway. ALK2 is the key gene involved in Fibrodysplasia ossificans progressiva (FOP), a rare autosomal dominant congenital disorder characterized by progressive heterotopic bone formation in muscle tissues.
Form	50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Molecular Mass	~67 kDa
Applications	Kinase Assay

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Storage	Store product at –70oC. 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.

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
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

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	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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