Active Recombinant Human ACVR1, GST-tagged

Cat. No. ACVR1-37H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human ALK2 (Q207D) (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 TGFbetaRI (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.
Bio-activity	18 nmol/min/mg
Molecular Mass	~67 kDa

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Applications	Kinase Assay
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.
Concentration	0.1ug/ul

GENE INFORMATION

Gene Name	ACVR1 activin A receptor, type I [Homo sapiens]
Official Symbol	ACVR1
Synonyms	ACVR1; activin A receptor, type I; OTTHUMP00000204604; OTTHUMP00000204626; TGF-B superfamily receptor type I; activin A receptor, type II-like kinase 2; activin receptor type I; activin receptor type-1; activin receptor-like kinase 2; hydroxyalkyl-protein kinase; 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
Chromosome	2q23-q24

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Location	
Pathway	Cytokine-cytokine receptor interaction; TGF-beta signaling pathway
Function	ATP binding; contributes_to activin receptor activity, type I; transmembrane receptor protein serine/threonine kinase activity; transforming growth factor beta binding; protein homodimerization activity

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