

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	<p>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.</p>
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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