

Recombinant Human ALK2 (Q207D), GST-tagged

Cat. No. ACVR1-32H 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 TGF β RI (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

 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

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

 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

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;

 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