

Active Recombinant Human ITK, GST-tagged

Cat. No. ITK-1419H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human ITK (352-end) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species	Human
Source	Sf9 Cells
ProteinLength	352 aa-end
Description	ITK is a member of the TEC family of non-receptor tyrosine kinases. ITK is expressed in T-cells and is important for T-cell development and activation through the antigen receptor. ITK require prior activation of Lck, Zap-70 and PI3-kinase for efficient activation and shares major substrates with both Lck and Zap-70. ITK knockout mice show multiple effects on T cell development, cytokine production and T-helper cell differentiation. T cells that lack or express mutant versions of ITK show impaired TCR-induced actin polymerization, cell polarization and regulation of the signaling events involved in cytoskeletal reorganization.
Form	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, 25% glycerol.
Bio-activity	58 nmol/min/mg
Molecular Mass	~53 kDa

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Purity	>90%
Applications	Kinase Assay, Western Blot
Storage	Store at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles.
Concentration	0.1 µg/µl

GENE INFORMATION

Gene Name	ITK IL2-inducible T-cell kinase [Homo sapiens]
Official Symbol	ITK
Synonyms	ITK; IL2-inducible T-cell kinase; tyrosine-protein kinase ITK/TSK; EMT; LYK; PSCTK2; kinase EMT; T-cell-specific kinase; tyrosine-protein kinase LYK; IL-2-inducible T cell kinase; IL-2-inducible T-cell kinase; homolog of mouse T-cell itk/tsk; interleukin-2-inducible T cell kinase; interleukin-2-inducible T-cell kinase; MGC126257; MGC126258;
Gene ID	3702
mRNA Refseq	NM_005546
Protein Refseq	NP_005537
MIM	186973
UniProt ID	Q08881

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Chromosome Location	5q31-q32
Pathway	Adaptive Immune System, organism-specific biosystem; B Cell Receptor Signaling Pathway, organism-specific biosystem; Chemokine signaling pathway, organism-specific biosystem; Chemokine signaling pathway, conserved biosystem; Class I PI3K signaling events, organism-specific biosystem; Fc-epsilon receptor I signaling in mast cells, organism-specific biosystem; Generation of second messenger molecules, organism-specific biosystem;
Function	ATP binding; metal ion binding; non-membrane spanning protein tyrosine kinase activity; nucleotide binding; protein binding;

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