

Recombinant Human ZAK, GST-tagged, Active

Cat. No. ZAK-457H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human ZAK was expressed by <i>baculovirus in Sf9 insect cell</i> using an N-terminal GST tag. MW = 82 kDa.
Species	Human
Source	Sf9 Cells
Description	ZAK is a member of the MAPKKK family of signal transduction molecules and mediates gamma radiation signaling leading to cell cycle arrest. The activity of ZAK plays a role in cell cycle checkpoint regulation as well as being involved in regulating actin organization. Expression of kinase-dead ZAK in mouse fibroblasts disrupts actin stress fibers and causes morphologic changes. ZAK can activate JNK through MKK4/MKK7 and ERK5/p38-gamma via MKK3/MKK6. Expression of ZAK increases the population of cells in the G2/M phase of the cell cycle, whereas dominant-negative ZAK attenuated the G2 arrest caused by gamma radiation.
Sequence	Full-length.
Applications	Kinase Assay, Western Blot.
Storage And Stability	Store product at -70°C . 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

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Gene Name	ZAK sterile alpha motif and leucine zipper containing kinase AZK [Homo sapiens]
Synonyms	sterile alpha motif and leucine zipper containing kinase AZK; ZAK; AZK; MLT; MRK; MLK7; MLTK; mlklak; MLK-related kinase; mixed lineage kinase 7; cervical cancer suppressor gene 4 protein; mixed lineage kinase-related kinase MRK-beta; MLK-like mitogen-activated protein triple kinase; mitogen-activated protein kinase kinase kinase MLT; leucine zipper- and sterile alpha motif-containing kinase; mixed lineage kinase with a leucine zipper and a sterile alpha motif; EC 2.7.11.25; HCCS-4; Leucine zipper- and sterile alpha motif-containing kinase ; Mixed lineage kinase-related kinase ; Sterile alpha motif- and leucine zipper-containing kinase AZK
Gene ID	51776
mRNA Refseq	NM_016653
Protein Refseq	NP_057737
MIM	609479
UniProt ID	Q9NYL2
Chromosome Location	2q24.2
Pathway	MAPK signaling pathway; Tight junction
Function	ATP binding; MAP kinase kinase kinase activity; identical protein binding; magnesium ion binding; nucleotide binding; protein serine/threonine kinase activity; protein tyrosine kinase activity; transferase activity

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