

ZAK recombinant protein

ZAK, Active

CATALOG # AAA74124	HOST Sf9 insect cells	APPLICATIONS Western Blot
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PRODUCT SYNONYMS

ZAK; Active; AZK; MLT; MRK; MLK7; MLTK; mklak; MAP3K20; ZAK recombinant protein

PRODUCT SPECIFICATIONS

Host	Sf9 insect cells
Form/Format	Recombinant protein stored in 50mM Tris-HCl, pH7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Applicable Applications for ZAK recombinant protein	WB (Western Blot), Kinase Assay
Tag	GST
Species	Human
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Store product at -70 degree 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.

IMAGES



SDS-PAGE

Purity: Sample Purity Data. For specific information on a given lot, see related technical data sheet.



Activity

Specific Activity: Sample Kinase Activity Plot. For specific information on a given lot, see related technical data sheet.

ADDITIONAL INFORMATION

Related Product Information for ZAK recombinant protein	Recombinant full-length human ZAK was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. The gene accession number is NM_133646. 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 (1). 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 (2).
Product Categories/Family for ZAK recombinant protein	Protein Kinases ; Apoptosis/Autophagy ; Cancer ; Cell Cycle ; ERK/MAPK Pathway ; JNK/SAPK Pathway ; p38 Pathway ; Ser/Thr Kinases
References	1. Yang J-J, et al: Mixed lineage kinase ZAK utilizing MKK7 and not MKK4 to activate the c-Jun N-terminal kinase and playing a role in the cell arrest. Biochem. Biophys. Res. Commun. 297: 105-110, 2002. 2. Gross E. A, et al: MRK, a mixed lineage kinase-related molecule that plays a role in gamma-radiation-induced cell cycle arrest. J. Biol. Chem. 277: 13873-13882, 2002

NCBI AND UNIPROT INFORMATION

NCBI GenBank Nucleotide #	NM_133646
Molecular Weight	~82kDa

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/zak-recombinant-protein-sf9-insect-cells-wb-western-blot-kinase-assay/74124>