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Anti-ZAK Antibody

Catalog # AP60939

Product Information

Application	WB, IHC
Primary Accession	Q9NYL2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	91155

Additional Information

Gene ID	51776
Other Names	MLTK; Mitogen-activated protein kinase kinase kinase MLT; Human cervical cancer suppressor gene 4 protein; HCCS-4; Leucine zipper- and sterile alpha motif-containing kinase; MLK-like mitogen-activated protein triple kinase; Mixed lineage kinase-related kinase; MLK-related kinase; MRK; Sterile alpha motif- and leucine zipper-containing kinase AZK
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human ZAK. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	MAP3K20 (HGNC:17797)
Function	Stress-activated component of a protein kinase signal transduction cascade that promotes programmed cell death in response to various stress, such as ribosomal stress, osmotic shock and ionizing radiation (PubMed:10924358, PubMed:11836244, PubMed:12220515, PubMed:14521931, PubMed:15350844, PubMed:15737997, PubMed:18331592, PubMed:20559024, PubMed:26999302, PubMed:32289254, PubMed:32610081, PubMed:35857590). Acts by catalyzing phosphorylation of MAP kinase kinases, leading to activation of the JNK (MAPK8/JNK1, MAPK9/JNK2 and/or MAPK10/JNK3) and MAP kinase p38 (MAPK11, MAPK12, MAPK13 and/or MAPK14) pathways (PubMed:11042189, PubMed:11836244, PubMed:12220515, PubMed:14521931, PubMed:15172994, PubMed:15737997, PubMed:32289254, PubMed:32610081,

PubMed:35857590). Activates JNK through phosphorylation of MAP2K4/MKK4 and MAP2K7/MKK7, and MAP kinase p38 gamma (MAPK12) via phosphorylation of MAP2K3/MKK3 and MAP2K6/MKK6 (PubMed:11836244, PubMed:12220515). Involved in stress associated with adrenergic stimulation: contributes to cardiac decompensation during periods of acute cardiac stress (PubMed:15350844, PubMed:21224381, PubMed:27859413). May be involved in regulation of S and G2 cell cycle checkpoint by mediating phosphorylation of CHEK2 (PubMed:15342622).

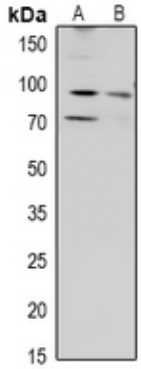
Cellular Location

Cytoplasm. Nucleus. Note=Translocates to the nucleus upon ultraviolet B irradiation.

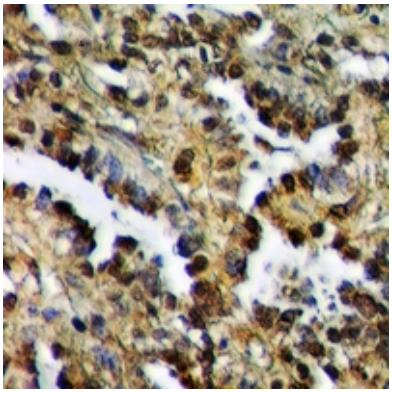
Tissue Location

Ubiquitously expressed. Isoform ZAKbeta is the predominant form in all tissues examined, except for liver, in which isoform ZAKalpha is more highly expressed

Images



Western blot analysis of ZAK expression in HEK293T (A), HCT116 (B) whole cell lysates. (Predicted band size: 91 kD; Observed band size: 91 kD)



Immunohistochemical analysis of ZAK staining in human prostate formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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