

Rabbit ZAK Polyclonal Antibody | anti-ZAK antibody

Phospho-ZAK (Ser165) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329752	Rabbit	Human, Mouse Predicted Reactivity: Pig (100%), Bovine (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (88%)	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

ZAK; Polyclonal Antibody; Phospho-ZAK (Ser165) Antibody; AZK; Cervical cancer suppressor gene 4 protein; HCCS 4; HCCS-4; HCCS4; Human cervical cancer suppressor gene 4 protein; Leucine zipper and sterile alpha motif containing kinase; Leucine zipper- and sterile alpha motif-containing kinase; Mitogen activated protein kinase kinase kinase MLT; Mitogen-activated protein kinase kinase kinase MLT; Mixed lineage kinase 7; Mixed lineage kinase related kinase; Mixed lineage kinase related kinase MRK beta; Mixed lineage kinase with a leucine zipper and a sterile alpha motif; Mixed lineage kinase-related kinase; MLK 7; MLK like mitogen activated protein triple kinase; MLK related kinase; MLK-like mitogen-activated protein triple kinase; MLK-related kinase; MLK7; Mklak; MLT; MLTK_HUMAN; MRK; Sterile alpha motif and leucine zipper containing kinase AZK; Sterile alpha motif- and leucine zipper-containing kinase AZK; Zak; anti-ZAK antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse Predicted Reactivity: Pig (100%), Bovine (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (88%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-ZAK (Ser165) Antibody detects endogenous levels of ZAK only when phosphorylated at Ser165. Tissue Specificity: Ubiquitously expressed. Isoform 2 is the predominant form in all tissues examined, except for liver, in which isoform 1 is more highly expressed.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-ZAK antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ZAK around the phosphorylation site of Ser165.
Conjugation	Unconjugated
Fragment	Fab fragment
Subunit Structure	Homodimer. Interacts with PKN1 and ZNF33A. Component of a signaling complex containing at least AKAP13, PKN1, MAPK14, MAP3K20 and MAP2K3. Within this complex, AKAP13 interacts directly with PKN1, which in turn recruits MAPK14, MAP2K3 and MAP3K20.
Similarity	Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase kinase subfamily.
Subcellular Location	Cytoplasm. Nucleus. Note: Translocates to the nucleus upon ultraviolet B irradiation.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

Staining A549 cells(4h of LPS treatment) by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25 degree C. Samples were then incubated with primary Ab(AF8195) and mouse anti-beta tubulin Ab(T0023) for 1 hour at 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody.The nuclear counter stain is DAPI (blue).



WB (Western Blot)

Western blot analysis of ZAK (Phospho-Ser165) using HeLa whole cell lysates.-/+ means absence or presence of N peptide(1/4 non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-ZAK antibody	Stress-activated component of a protein kinase signal transduction cascade. Regulates the JNK and p38 pathways. Part of a signaling cascade that begins with the activation of the adrenergic receptor ADRA1B and leads to the activation of MAPK14. Pro-apoptotic. Role in regulation of S and G2 cell cycle checkpoint by direct phosphorylation of CHEK2. Involved in limb development.Phosphorylates histone H3 at 'Ser-28'. May have role in neoplastic cell transformation and cancer development. Causes cell shrinkage and disruption of actin stress fibers.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	82880648
NCBI GeneID	51776
NCBI Accession #	NP_057737.2
NCBI GenBank Nucleotide #	NM_016653.2
UniProt Accession #	Q9NYL2; Q53SX1; Q580W8; Q59GY5; Q86YW8; Q9HCC4; Q9HCC5; Q9HDD2; Q9NYE9; B3KPG2
Molecular Weight	91,155 Da
NCBI Official Full Name	mitogen-activated protein kinase kinase kinase MLT isoform 1
NCBI Official Symbol	ZAK
NCBI Official Synonym Symbols	pk; AZK; MLT; MRK; MLK7; MLTK; mlklak
NCBI Protein Information	mitogen-activated protein kinase kinase kinase MLT; HCCS-4; mixed lineage kinase 7; mixed lineage kinase-related kinase MRK-beta; human cervical cancer suppressor gene 4 protein; MLK-like mitogen-activated protein triple kinase; mixed lineage kinase with
UniProt Protein Name	Mitogen-activated protein kinase kinase kinase MLT
UniProt Gene Name	MLTK
UniProt Synonym Gene Names	ZAK; HCCS-4; MLK-related kinase; MRK
UniProt Entry Name	MLTK_HUMAN

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.