

ARG54419 anti-ZIP Kinase antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ZIP Kinase
Tested Reactivity	Hu
Tested Application	ICC/IF, WB
Specificity	This antibody recognizes full-length human, mouse, and rat ZIP kinase (52kDa).
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ZIP Kinase
Species	Human
Immunogen	Peptide corresponding to aa 279-298 of human ZIP kinase (accession no. BAA81746).
Conjugation	Un-conjugated
Alternate Names	ZIPK; Zipper-interacting protein kinase; ZIP; DLK; Dlk; DAP-like kinase; Death-associated protein kinase 3; ZIP-kinase; EC 2.7.11.1; MYPT1 kinase; DAP kinase 3

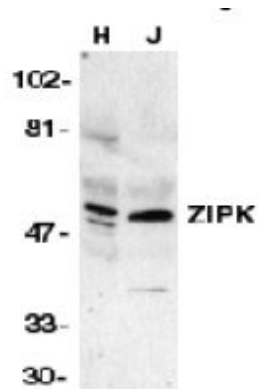
Application Instructions

Application table	Application	Dilution
	ICC/IF	Assay-dependent
	WB	Assay-dependent
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	HeLa and Jurkat	

Properties

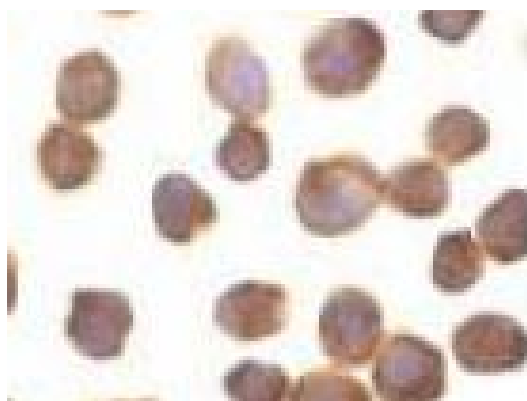
Form	Liquid
Purification	Immunoaffinity chroma-tography
Buffer	PBS (pH 7.4) and 0.02% Sodium azide
Preservative	0.02% Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Database links	GeneID: 1613 Human Swiss-port # O43293 Human
Gene Symbol	DAPK3
Gene Full Name	death-associated protein kinase 3
Background	<p>A novel serine/threonine kinase that mediates apoptosis has been identified and designated ZIP kinase. ZIP kinase contains an N-terminal kinase domain and a C-terminal leucine zipper structure and binds to ATF4, a member of ATF/CREB family. ZIP kinase has high sequence homology to DAP kinase (death-associated protein kinase), a mediator of apoptosis induced by gamma interferon. Overexpression of ZIP kinase induces apoptosis. ZIP and DAP kinases represent a novel kinase family which mediates apoptosis through their catalytic activities. Messenger RNA for ZIP kinase is widely expressed in a variety of human tissues.</p>
Function	<p>Serine/threonine kinase which is involved in the regulation of apoptosis, autophagy, transcription, translation and actin cytoskeleton reorganization. Involved in the regulation of smooth muscle contraction. Regulates both type I (caspase-dependent) apoptotic and type II (caspase-independent) autophagic cell deaths signal, depending on the cellular setting. Involved in regulation of starvation-induced autophagy. Regulates myosin phosphorylation in both smooth muscle and non-muscle cells. In smooth muscle, regulates myosin either directly by phosphorylating MYL12B and MYL9 or through inhibition of smooth muscle myosin phosphatase (SMPP1M) via phosphorylation of PPP1R12A; the inhibition of SMPP1M functions to enhance muscle responsiveness to Ca(2+) and promote a contractile state. Phosphorylates MYL12B in non-muscle cells leading to reorganization of actin cytoskeleton. Isoform 2 can phosphorylate myosin, PPP1R12A and MYL12B. Overexpression leads to condensation of actin stress fibers into thick bundles. Involved in actin filament focal adhesion dynamics. The function in both reorganization of actin cytoskeleton and focal adhesion dissolution is modulated by RhoD. Positively regulates canonical Wnt/beta-catenin signaling through interaction with NLK and TCF7L2. Phosphorylates RPL13A on 'Ser-77' upon interferon-gamma activation which is causing RPL13A release from the ribosome, RPL13A association with the GAIT complex and its subsequent involvement in transcript-selective translation inhibition. Enhances transcription from AR-responsive promoters in a hormone- and kinase-dependent manner. Involved in regulation of cell cycle progression and cell proliferation. May be a tumor suppressor. [UniProt]</p>
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Cell Death antibody; Signaling Transduction antibody
Calculated Mw	53 kDa
PTM	<p>The phosphorylation status is critical for kinase activity, oligomerization and intracellular localization. Phosphorylation at Thr-180, Thr-225 and Thr-265 is essential for activity. The phosphorylated form is localized in the cytoplasm promoted by phosphorylation at Thr-299; nuclear translocation or retention is maximal when it is not phosphorylated. Phosphorylation increases the trimeric form, and its dephosphorylation favors a kinase-inactive monomeric form. Both isoform 1 and isoform 2 can undergo autophosphorylation.</p>



ARG54419 anti-ZIP Kinase antibody WB image

Western Blot: H:HeLa; J:Jurkat stained with ARG54419 anti-ZIP Kinase antibody at 1 µg/ml dilution.



ARG54419 anti-ZIP Kinase antibody ICC/IF image

Immunofluorescence: Jurkat stained with ARG54419 anti-ZIP Kinase antibody at 10 µg/ml dilution.