

Rabbit DAPK1 Polyclonal Antibody | anti-DAPK1 antibody

Phospho-DAPK1 (Ser734) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329710	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (91%), Bovine (91%), Horse (89%), Sheep (91%), Rabbit (91%), Dog (91%), Chicken (83%), Xenopus (90%)	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

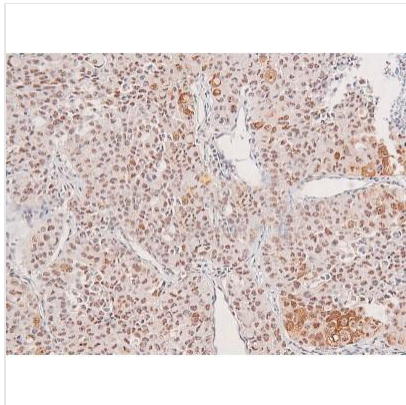
DAPK1; Polyclonal Antibody; Phospho-DAPK1 (Ser734) Antibody; DAK1; DAP K1; DAP kinase 1; DAPK 1; DAPK; DAPK1_HUMAN; Death Associated Protein Kinase 1; Death-associated protein kinase 1; DKFZp781I035; anti-DAPK1 antibody

PRODUCT SPECIFICATIONS

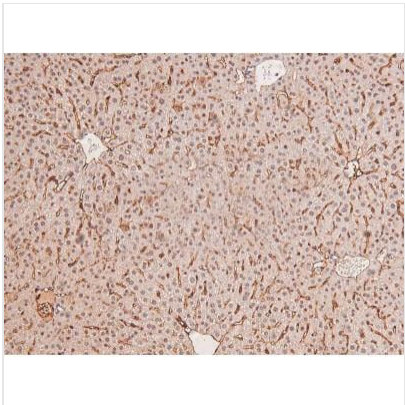
Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (91%), Bovine (91%), Horse (89%), Sheep (91%), Rabbit (91%), Dog (91%), Chicken (83%), Xenopus (90%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-DAPK1 (Ser734) Antibody detects endogenous levels of DAPK1 only when phosphorylated at Ser736. Tissue Specificity: Isoform 2 is expressed in normal intestinal tissue as well as in colorectal carcinomas.
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-DAPK1 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human DAPK1 around the phosphorylation site of Ser734.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Ubiquitinated by the BCR (KLHL20) E3 ubiquitin ligase complex, leading to its degradation by the proteasome. Removal of the C-terminal tail of isoform 2 (corresponding to amino acids 296-337 of isoform 2) by proteolytic cleavage stimulates maximally its membrane-blebbing function. In response to mitogenic stimulation (PMA or EGF), phosphorylated at Ser-289; phosphorylation suppresses DAPK1 pro-apoptotic function. Autophosphorylation at Ser-308 inhibits its catalytic activity. Phosphorylation at Ser-734 by MAPK1 increases its catalytic activity and promotes cytoplasmic retention of MAPK1. Endoplasmic-stress can cause dephosphorylation at Ser-308.
Subunit Structure	Interacts with KLHL20. Interacts (via death domain) with MAPK1 and MAPK3. Interacts with MAP1B (via N-terminus). Interacts with PRKD1 in an oxidative stress-regulated manner. Interacts with PIN1, PDCD6, BECN1, TSC2 and STX1A. Interacts (via kinase domain) with DAPK3 (via kinase domain). Interacts with GRINB (By similarity). Interacts (via death domain) with UNC5B (via death domain). Interacts with UNC5C (via death domain).
Similarity	The autoinhibitory domain sterically blocks the substrate peptide-binding site by making both hydrophobic and electrostatic contacts with the kinase core. Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. DAP kinase subfamily.

Subcellular Location	Cytoplasm. Cytoplasm>Cytoskeleton. Note: Colocalizes with MAP1B in the microtubules and cortical actin fibers.Cytoplasm. Cytoplasm>Cytoskeleton.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



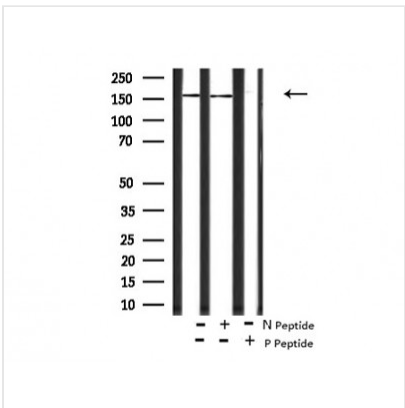
IHC (Immunohistochemistry)
At 1/200 staining Human liver cancer tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemisry)
At 1/200 staining Mouse liver tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



IHC (Immunohiostchemistry)
Staining Rat testis tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of DAPK1 (Phospho-Ser734) using HepG2 whole cell lysates.-/+ means absence or presence of N peptide(1/4non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-DAPK1 antibody	Calcium/calmodulin-dependent serine/threonine kinase involved in multiple cellular signaling pathways that trigger cell survival, apoptosis, and autophagy. Regulates both type I apoptotic and type II autophagic cell deaths signal, depending on the cellular setting. The former is caspase-dependent, while the latter is caspase-independent and is characterized by the accumulation of autophagic vesicles. Phosphorylates PIN1 resulting in inhibition of its catalytic activity, nuclear localization, and cellular function. Phosphorylates TPM1, enhancing stress fiber formation in endothelial cells. Phosphorylates STX1A and significantly decreases its binding to STXBP1. Phosphorylates PRKD1 and regulates JNK signaling by binding and activating PRKD1 under oxidative stress. Phosphorylates BECN1, reducing its interaction with BCL2 and BCL2L1 and promoting the induction of autophagy. Phosphorylates TSC2, disrupting the TSC1-TSC2 complex and stimulating mTORC1 activity in a growth factor-dependent pathway. Phosphorylates RPS6, MYL9 and DAPK3. Acts as a signaling amplifier of NMDA receptors at extrasynaptic sites for mediating brain damage in stroke. Cerebral ischemia recruits DAPK1 into the NMDA receptor complex and it phosphorylates GRINB at Ser-1303 inducing injurious Ca (2+) influx through NMDA receptor channels, resulting in an irreversible neuronal death. Required together with DAPK3 for phosphorylation of RPL13A upon interferon-gamma activation which is causing RPL13A involvement in transcript-selective translation inhibition.Isoform 2 cannot induce apoptosis but can induce membrane blebbing.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	89363047
NCBI GeneID	1612
NCBI Accession #	NP_004929.2
NCBI GenBank Nucleotide #	NM_004938.2
UniProt Accession #	P53355; Q14CQ7; Q1W5W0; Q68CP8; Q6ZRZ3; Q9BTL8; B7ZLD2
Molecular Weight	1430
NCBI Official Full Name	death-associated protein kinase 1
NCBI Official Synonym Full Names	death-associated protein kinase 1
NCBI Official Symbol	DAPK1
NCBI Official Synonym Symbols	DAPK
NCBI Protein Information	death-associated protein kinase 1; DAP kinase 1
UniProt Protein Name	Death-associated protein kinase 1
UniProt Gene Name	DAPK1
UniProt Synonym Gene Names	DAPK; DAP kinase 1
UniProt Entry Name	DAPK1_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.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/dapk1-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/329710>