

ARG58466 anti-DAPK1 antibody

Package: 100 μl Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes DAPK1
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
lsotype	lgG
Target Name	DAPK1
Species	Human
Immunogen	Recombinant fusion protein corresponding to aa. 1141-1430 of Human DAPK1 (NP_004929.2).
Conjugation	Un-conjugated
Alternate Names	EC 2.7.11.1; DAPK; DAP kinase 1; Death-associated protein kinase 1

Application Instructions

Application table	Application	Dilution
	IHC-P	
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Mouse kidney	
Observed Size	160 kDa	

Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
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. 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.

Bioinformation

Gene Symbol	DAPK1
Gene Full Name	death-associated protein kinase 1
Background	Death-associated protein kinase 1 is a positive mediator of gamma-interferon induced programmed cell death. DAPK1 encodes a structurally unique 160-kD calmodulin dependent serine-threonine kinase that carries 8 ankyrin repeats and 2 putative P-loop consensus sites. It is a tumor suppressor candidate. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2013]
Function	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.
Calculated Mw	160 kDa
PTM	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. [UniProt]
Cellular Localization	Cytoplasm, cytoskeleton, cytoskeleton. [UniProt]

Images



ARG58466 anti-DAPK1 antibody WB image

Western blot: 25 μg of Mouse kidney lysate stained with ARG58466 anti-DAPK1 antibody at 1:1000 dilution.