

**DAPK1 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7217b**

**Specification**

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**DAPK1 Antibody (C-term) - Product Information**

Application	IF, IHC-P, WB,E
Primary Accession	<a href="#">P53355</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	1360-1389

**DAPK1 Antibody (C-term) - Additional Information**

**Gene ID** 1612

**Other Names**

Death-associated protein kinase 1, DAP kinase 1, DAPK1, DAPK

**Target/Specificity**

This DAPK1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1360-1389 amino acids from the C-terminal region of human DAPK1.

**Dilution**

IF~~1:10~50

IHC-P~~1:50~100

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

DAPK1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**DAPK1 Antibody (C-term) - Protein Information**

**Name** DAPK1

**Synonyms** DAPK

**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  $\text{Ca}^{2+}$  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.

#### **Cellular Location**

[Isoform 1]: Cytoplasm. Cytoplasm, cytoskeleton. Note=Colocalizes with MAP1B in the microtubules and cortical actin fibers

#### **Tissue Location**

Isoform 2 is expressed in normal intestinal tissue as well as in colorectal carcinomas.

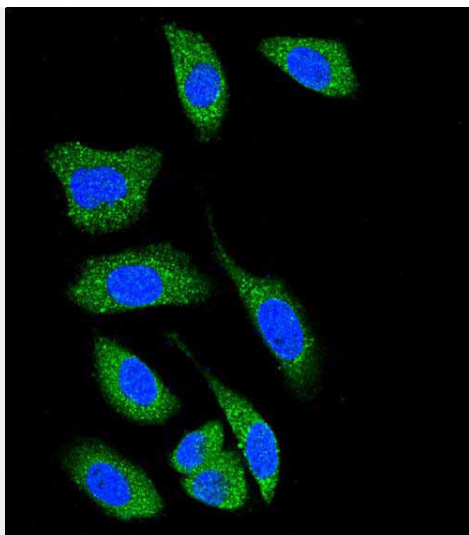
#### **DAPK1 Antibody (C-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

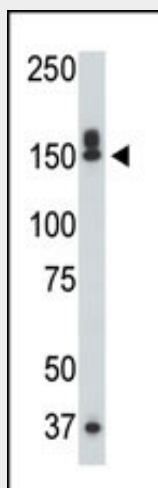
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **DAPK1 Antibody (C-term) - Images**

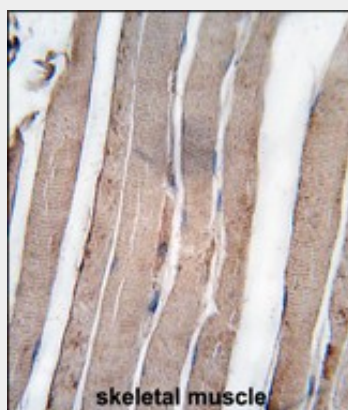




Confocal immunofluorescent analysis of DAP Kinase 1 (DAPK1) Antibody (C-term) (Cat. #AP7217b) with A549 cell followed by Alexa Fluor® 489-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



The DAPK1 polyclonal antibody (Cat. #AP7217b) is used in Western blot to detect DAPK1 in mouse liver tissue lysate.



Formalin-fixed and paraffin-embedded human skeletal muscle tissue reacted with DAPK1 antibody (C-term) (Cat.#AP7217b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

**DAPK1 Antibody (C-term) - Background**

Death-associated protein kinase 1 is a positive mediator of gamma-interferon induced programmed cell death (apoptosis). 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.

**DAPK1 Antibody (C-term) - References**

Shohat, G., et al., J. Biol. Chem. 276(50):47460-47467 (2001).

Inbal, B., et al., Mol. Cell. Biol. 20(3):1044-1054 (2000).

Deiss, L.P., et al., Genes Dev. 9(1):15-30 (1995).

**DAPK1 Antibody (C-term) - Citations**

- [Hyperthermia depletes Oct4 in mouse blastocysts and stem cells](#)
- [Silencing DNA methyltransferase 1 \(DNMT1\) inhibits proliferation, metastasis and invasion in ESCC by suppressing methylation of RASSF1A and DAPK.](#)