

**DAPK1 Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP7217b****Specification**

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**DAPK1 Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [P53355](#)**DAPK1 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 1612**Other Names**

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

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP7217b](/product/products/AP7217b) was selected from the C-term region of humanPK1 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**DAPK1 Antibody (C-term) Blocking Peptide - 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) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**DAPK1 Antibody (C-term) Blocking Peptide - Images****DAPK1 Antibody (C-term) Blocking Peptide - 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) Blocking Peptide - 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).