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DAP Kinase 1 Antibody
Rabbit mAb
Catalog # AP90323

Specification

DAP Kinase 1 Antibody - Product Information

Application	**WB, IHC, ICC**
Primary Accession	P53355
Reactivity	**Rat**
Clonality	**Monoclonal**

Other Names
DAK1; DAP K1; DAP kinase 1; DAPK 1; DAPK; DAPK1; DAPK1_HUMAN; Death Associated Protein Kinase 1; Death-associated protein kinase 1;

Isotype	**Rabbit IgG**
Host	**Rabbit**
Calculated MW	**160046 Da**

DAP Kinase 1 Antibody - Additional Information

Purification	**Affinity-chromatography**
Immunogen	**A synthesized peptide derived from human DAP Kinase 1**
Description	**DAP (death associated protein) kinase and ZIP kinase are members of a novel protein kinase family, the members of which have the capacity to mediate apoptosis through their catalytic activities. DAP kinase (DAPK) contains a “death domain” and has been shown to mediate IFN-γ-induced apoptosis. The introduction of DAPK into highly metastatic carcinoma clones lacking DAPK expression has been shown to result in the suppression of metastasis, thus linking suppression of apoptosis to metastasis.**
Storage Condition and Buffer	**Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.**

DAP Kinase 1 Antibody - 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 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.

DAP Kinase 1 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DAP Kinase 1 Antibody - Images

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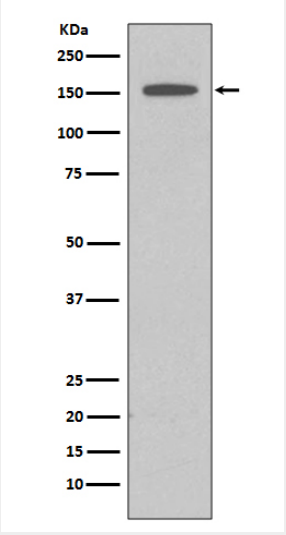

Western blot analysis of DAP Kinase 1 expression in HeLa cell lysate.