凋亡相关蛋白激酶 3 抗体

产品货号： mlR1692

英文名称： ZIP Kinase

中文名称： 凋亡相关蛋白激酶 3 抗体

别　　名： DAPK3; Death associated protein kinase 3; DAP kinase 3; DAP like kinase; Dapk 3; Dapk3; Death associated kinase 3; Death associated protein kinase 3; Dlk; EC 2.7.11.1; FLJ36473; ZIP; ZIP kinase; ZIPK; DAPK3_HUMAN.

研究领域： 染色质和核信号　信号转导　转录调节因子

抗体来源： Rabbit

克隆类型： Polyclonal

交叉反应　： Human, Mouse, Rat, Chicken, Dog, Cow, Horse, Rabbit,

产品应用： WB=1:500-2000 ELISA=1:500-1000 IHC-P=1:400-800 IHC-F=1:400-800 IF=1:100-500 （石蜡切片需做抗原修复）
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

分 子 量： 52kDa

细胞定位： 细胞核

性　　状： Lyophilized or Liquid

浓　　度： 1mg/ml

免 疫 原： KLH conjugated synthetic peptide derived from human DAPK3:30-130/454

亚　　型： IgG

纯化方法： affinity purified by Protein A

储 存 液： 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

保存条件： Store at -20 ° C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20° C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ° C.

PubMed： PubMed

产品介绍： Apoptosis is mediated by death domain containing adapter molecules and a caspase family of proteases. Certainserine/threonine protein kinases, such as ASK1 and RIP, are mediators of apoptosis. A novel serine/threonine kinase that mediates apoptosis was recently identified and designated ZIP kinase. ZIP kinase contains an N terminal kinase domain and a C terminal leucine zipper structure and binds to ATF4 that is a member of ATF/CREBfamily. ZIP kinase has high sequence homology to DAP kinase (death associated protein kinase), which is a mediator of apoptosis induced by gamma interferon. Overexpression of ZIP kinase induces apoptosis. ZIP and DAP kinases represent a novel kinase family, which mediates apoptosis through their catalytic activities. The messenger RNA was ubiquitously expressed in various tissues.

Function:

Serine/threonine kinase which is involved in the regulation of apoptosis, autophagy, transcription, translation, actin cytoskeleton reorganization, cell motility, smooth muscle contraction, and mitosis, particularly cytokinesis. 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. Regulates myosin phosphorylation in both smooth muscle and non-muscle cells. In smooth muscle, regulates myosin either directly by phosphorylating MYL12B and MYL9 or through inhibition of smooth muscle myosin phosphatase (SMPP1M) via phosphorylation of PPP1R12A, and the inhibition of SMPP1M functions to enhance muscle responsiveness to Ca(2+) and promote a contractile state. Enhances transcription from AR-responsive promoters in a hormone- and kinase-dependent manner. Phosphorylates STAT3 and enhances its transcriptional activity. Positively regulates the canonical Wnt/beta-catenin signaling through interaction with NLK and TCF7L2. Can disrupt the NLK-TCF7L2 complex thereby influencing the phosphorylation of TCF7L2 by NLK. Phosphorylates histone H3 on 'Thr-11' at centromeres during mitosis. Involved in the

formation of promyelocytic leukemia protein nuclear body (PML-NB), one of many subnuclear domains in the eukaryotic cell nucleus, and which is involved in oncogenesis and viral infection. Phosphorylates RPL13A on 'Ser-77' upon interferon-gamma activation which is causing RPL13A release from the ribosome, its association with the GAIT complex and its subsequent involvement in transcript-selective translation inhibition.

Isoform 2 can phosphorylate myosin, PPP1R12A and MYL12B.

Subunit:

Monomer and homotrimer. Can also exist as homodimer or form heterodimers with ATF4. Homodimerization is required for activation segment autophosphorylation Both interactions require an intact leucine zipper domain and oligomerization is required for full enzymatic activity. Also binds to DAXX and PAWR, possibly in a ternary complex which plays a role in caspase activation. According to PubMed:17953487, does not interact with PARW. Interacts with AATF, CDC5L, UBE2D1, UBE2D2 AND UBE2D3. Interacts with AR and this interaction is enhanced by AATF. Interacts (via leucine zipper) with TCP10L (via leucine zipper). Interacts (via kinase domain) with DAPK1 (via kinase domain). Interacts with STAT3, NLK and TCF7L2. Isoform 1 and isoform 2 can interact with myosin and PPP1R12A.

Subcellular Location:

Nucleus. Cytoplasm. Nucleus, PML body. Chromosome, centromere. Cytoplasm, cytoskeleton, centrosome. Note=The phosphorylated form is anchored in the cytoplasm and/or prevented from being shuttled to the nucleus, whereas nuclear translocation or retention is maximal when it is not phosphorylated. Phosphorylation at Thr-299 promotes cytoplasmic localization. Relocates to the cytoplasm on binding PAWR where the complex appears to interact with actin filaments. Localizes to promyelocytic leukemia protein nuclear bodies (PML-NBs). Associated: with the centrosomes throughout the mitotic cell cycle, with the centromeres from prophase to anaphase and with the contractile ring during cytokinesis.

Isoform 2: Nucleus. Cytoplasm.

Tissue Specificity:

Isoform 2 is expressed in the bladder smooth muscle.

Post-translational modifications:

Ubiquitinated. Ubiquitination mediated by the UBE2D3 E3 ligase does not lead to proteasomal degradation, but influences promyelocytic leukemia protein nuclear bodies (PML-NBs) formation in the nucleus.

The phosphorylation status is critical for: its intracellular localization, ability to oligomerize and its activity. The phosphorylated form is anchored in the cytoplasm and/or prevented from being shuttled to the nucleus, whereas nuclear translocation or retention is maximal when it is not phosphorylated. Phosphorylation increases the trimeric form, and its dephosphorylation shifts the equilibrium towards the monomeric form. Phosphorylation at Thr-180, Thr-225 and Thr-265 is essential for activity. Phosphorylation at Thr-299 promotes cytoplasmic localization. A species-specific loss of a key phosphorylation site in murine DAPK3 seems to direct it to the nucleus, while the presence of the Thr-299 site in human DAPK3 correlates with cytoplasmic localization. Both isoform 1 and isoform 2 can undergo autophosphorylation.

Similarity:

Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. DAP kinase subfamily.

Contains 1 protein kinase domain.

SWISS:

O43293

Gene ID:

1613

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

DAPK3 凋亡有关蛋白激酶 3，属于丝/苏氨基酸蛋白激酶。