

#### Mouse Dapk3 Antibody (Center) Blocking Peptide Synthetic peptide Catalog # BP14711c

### **Specification**

# Mouse Dapk3 Antibody (Center) Blocking Peptide - Product Information

Primary Accession

### <u>054784</u>

# Mouse Dapk3 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 13144

**Other Names** 

Death-associated protein kinase 3, DAP kinase 3, DAP-like kinase, Dlk, MYPT1 kinase, ZIP-kinase, Dapk3, Zipk

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.

# Mouse Dapk3 Antibody (Center) Blocking Peptide - Protein Information

Name Dapk3

Synonyms Zipk

#### Function

Serine/threonine kinase which is involved in the regulation of apoptosis, autophagy, transcription, translation and actin cytoskeleton reorganization. Regulates both type I (caspase-dependent) apoptotic and type II (caspase-independent) autophagic cell deaths signal, depending on the cellular setting. Involved in formation of promyelocytic leukemia protein nuclear body (PML-NB). Involved in apoptosis involving PAWR which mediates cytoplasmic relocation; in vitro phosphorylates PAWR (By similarity). Phosphorylates MYL12B in non-muscle cells leading to reorganization of actin cytoskeleton such as in regulation of cell polarity and cell migration. Positively regulates canonical Wnt/beta-catenin signaling through interaction with NLK and TCF7L2; disrupts the NLK-TCF7L2 complex thereby influencing the phosphorylation of TCF7L2 by NLK. Phosphorylates STAT3 and enhances its transcriptional activity. Enhances transcription from AR-responsive promoters in a hormone- and kinase-dependent manner. Phosphorylates histone H3 on 'Thr-11' at centromeres during mitosis (By similarity). Phosphorylates RPL13A on 'Ser-77' upon interferon-gamma activation which is causing RPL13A release from the ribosome, RPL13A association with the GAIT complex and its subsequent involvement in transcript- selective translation inhibition.



### **Cellular Location**

Nucleus. Nucleus, PML body. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome {ECO:0000250|UniProtKB:088764}. Chromosome, centromere

{ECO:0000250|UniProtKB:088764}. Cytoplasm {ECO:0000250|UniProtKB:088764}.

Note=Predominantly localized to the nucleus. Relocates to the cytoplasm on binding PAWR where the complex appears to interact with actin filaments. Associated with the centrosomes throughout the mitotic cell cycle, with the centromeres from prophase to anaphase and with the contractile ring during cytokinesis (By similarity). {ECO:0000250|UniProtKB:088764}

#### Tissue Location

Highly expressed in heart, brain, lung, skeletal muscle, kidney and testis. Lower levels in liver and spleen

# Mouse Dapk3 Antibody (Center) Blocking Peptide - Protocols

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

### <u>Blocking Peptides</u>

# Mouse Dapk3 Antibody (Center) Blocking Peptide - Images

# Mouse Dapk3 Antibody (Center) Blocking Peptide - Background

Serine/threonine kinase which acts as a positive regulator of apoptosis. Phosphorylates histone H3 on 'Thr-11' at centromeres during mitosis. Regulates myosin light chain phosphatase through phosphorylation of MYPT1 thereby regulating the assembly of the actin cytoskeleton, cell migration, invasiveness of tumor cells, smooth muscle contraction and neurite outgrowth. 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 (By similarity).

### Mouse Dapk3 Antibody (Center) Blocking Peptide - References

Chang, A.N., et al. J. Biol. Chem. 285(8):5122-5126(2010)Ohbayashi, N., et al. Biochem. Biophys. Res. Commun. 372(4):708-712(2008)Wooldridge, A.A., et al. J. Biol. Chem. 283(17):11850-11859(2008)Shoval, Y., et al. PLoS Genet. 3(10):1884-1893(2007)Sato, N., et al. Int. Immunol. 17(12):1543-1552(2005)