

**Mouse Mark4 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP16077B**

**Specification**

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**Mouse Mark4 Antibody (C-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">Q8CIP4</a>
Other Accession	<a href="#">NP_758483.1</a>
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	82644
Antigen Region	606-633

**Mouse Mark4 Antibody (C-term) - Additional Information**

**Gene ID** 232944

**Other Names**

MAP/microtubule affinity-regulating kinase 4, Mark4, Kiaa1860

**Target/Specificity**

This Mouse Mark4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 606-633 amino acids from the C-terminal region of mouse Mark4.

**Dilution**

WB~~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**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**

Mouse Mark4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**Mouse Mark4 Antibody (C-term) - Protein Information**

**Name** Mark4 {ECO:0000303|PubMed:16973293, ECO:0000312|MGI:MGI:1920955}

**Function** Serine/threonine-protein kinase (By similarity). Phosphorylates the microtubule-associated protein MAPT/TAU (By similarity). Also phosphorylates the

microtubule-associated proteins MAP2 and MAP4 (By similarity). Involved in regulation of the microtubule network, causing reorganization of microtubules into bundles (By similarity). Required for the initiation of axoneme extension during cilium assembly (By similarity). Regulates the centrosomal location of ODF2 and phosphorylates ODF2 in vitro (By similarity). Plays a role in cell cycle progression, specifically in the G1/S checkpoint (By similarity). Reduces neuronal cell survival (By similarity). Plays a role in energy homeostasis by regulating satiety and metabolic rate (PubMed:22992738). Promotes adipogenesis by activating JNK1 and inhibiting the p38MAPK pathway, and triggers apoptosis by activating the JNK1 pathway (PubMed:24989893). Phosphorylates mTORC1 complex member RPTOR and acts as a negative regulator of the mTORC1 complex, probably due to disruption of the interaction between phosphorylated RPTOR and the RAGA/RRAGC heterodimer which is required for mTORC1 activation (By similarity). Involved in NLRP3 positioning along microtubules by mediating NLRP3 recruitment to microtubule organizing center (MTOC) upon inflammasome activation (PubMed:28656979).

#### Cellular Location

Cytoplasm, cytoskeleton, microtubule organizing center, centrosome {ECO:0000250|UniProtKB:Q96L34}. Cytoplasm, cytoskeleton, microtubule organizing center. Cytoplasm, cytoskeleton, cilium axoneme {ECO:0000250|UniProtKB:Q96L34}. Cytoplasm, cytoskeleton, cilium basal body {ECO:0000250|UniProtKB:Q96L34}. Cytoplasm {ECO:0000250|UniProtKB:Q96L34}. Cell projection, dendrite {ECO:0000250|UniProtKB:Q96L34}. Note=Localized at the tips of neurite- like processes in differentiated neuroblast cells. Detected in the cytoplasm and neuropil of the hippocampus {ECO:0000250|UniProtKB:Q96L34}

#### Tissue Location

Isoform 1 and isoform 2 show similar expression patterns in the central nervous system and are present in the same subsets of neurons including pyramidal and non-pyramidal neurons in the cerebral cortex and hippocampus, cerebellar Purkinje cells, and interneurons and motor neurons in the spinal cord but not in glial cells (at protein level) (PubMed:16973293). Isoform 2 is the major isoform in brain and cerebellum (PubMed:16973293, PubMed:15009667) Also expressed in spleen, liver, small intestine, colon, kidney, tongue, testis and lung (PubMed:16973293, PubMed:15009667). Isoform 1 and isoform 2 are expressed at similar levels in heart (PubMed:16973293).

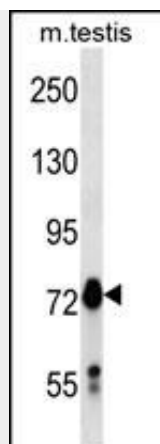
#### Mouse Mark4 Antibody (C-term) - Protocols

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](#)

#### Mouse Mark4 Antibody (C-term) - Images





Mouse Mark4 Antibody (C-term) (Cat. #AP16077b) western blot analysis in mouse testis tissue lysates (35ug/lane). This demonstrates the Mark4 antibody detected the Mark4 protein (arrow).

#### **Mouse Mark4 Antibody (C-term) - References**

- Schneider, A., et al. J. Neurochem. 88(5):1114-1126(2004)  
Zambrowicz, B.P., et al. Proc. Natl. Acad. Sci. U.S.A. 100(24):14109-14114(2003)  
Okazaki, N., et al. DNA Res. 10(1):35-48(2003)  
Stryke, D., et al. Nucleic Acids Res. 31(1):278-281(2003)  
Lee, Y.J., et al. FEBS Lett. 472 (2-3), 230-234 (2000) :