

**MARK Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7231b****Specification**

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**MARK Antibody (C-term) - Product Information**

|                   |                                                    |
|-------------------|----------------------------------------------------|
| Application       | IHC-P, WB,E                                        |
| Primary Accession | <a href="#">O9P0L2</a>                             |
| Other Accession   | <a href="#">O08678</a> , <a href="#">NP_061120</a> |
| Reactivity        | Human                                              |
| Predicted         | Rat                                                |
| Host              | Rabbit                                             |
| Clonality         | Polyclonal                                         |
| Isotype           | Rabbit IgG                                         |
| Calculated MW     | 89003                                              |
| Antigen Region    | 643-674                                            |

**MARK Antibody (C-term) - Additional Information****Gene ID** 4139**Other Names**

Serine/threonine-protein kinase MARK1, MAP/microtubule affinity-regulating kinase 1, PAR1 homolog c, Par-1c, Par1c, MARK1 ([http://www.genenames.org/cgi-bin/gene\\_symbol\\_report?hgnc\\_id=6896](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=6896))  
HGNC:6896

**Target/Specificity**

This MARK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 643-674 amino acids from the C-terminal region of human MARK.

**Dilution**

IHC-P~~1:10~50

WB~~1:1000

E~~Use at an assay dependent concentration.

**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**

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

**MARK Antibody (C-term) - Protein Information**

**Name** MARK1 ([HGNC:6896](#))

**Function** Serine/threonine-protein kinase (PubMed:[23666762](#)). Involved in cell polarity and microtubule dynamics regulation. Phosphorylates DCX, MAP2 and MAP4. Phosphorylates the microtubule-associated protein MAPT/TAU (PubMed:[23666762](#)). Involved in cell polarity by phosphorylating the microtubule-associated proteins MAP2, MAP4 and MAPT/TAU at KXGS motifs, causing detachment from microtubules, and their disassembly. Involved in the regulation of neuronal migration through its dual activities in regulating cellular polarity and microtubule dynamics, possibly by phosphorylating and regulating DCX. Also acts as a positive regulator of the Wnt signaling pathway, probably by mediating phosphorylation of dishevelled proteins (DVL1, DVL2 and/or DVL3).

**Cellular Location**

Cell membrane; Peripheral membrane protein. Cytoplasm, cytoskeleton. Cytoplasm Cell projection, dendrite. Note=Appears to localize to an intracellular network.

**Tissue Location**

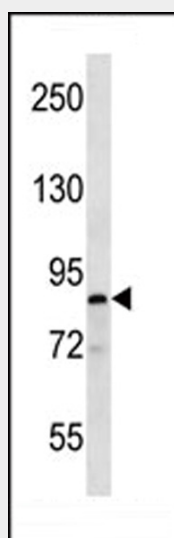
Highly expressed in heart, skeletal muscle, brain, fetal brain and fetal kidney.

**MARK Antibody (C-term) - Protocols**

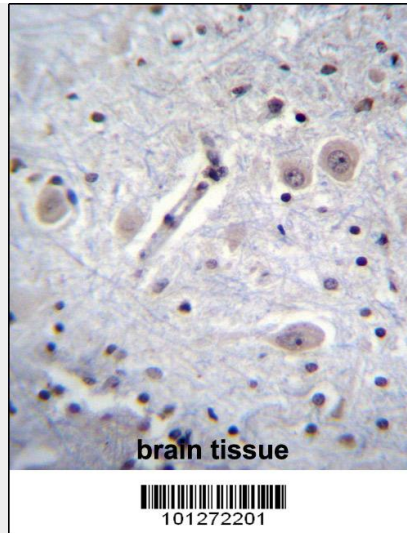
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**MARK Antibody (C-term) - Images**



MARK Antibody (S658) (Cat. #AP7231b) western blot analysis in T47D cell line lysates (35ug/lane). This demonstrates the MARK antibody detected the MARK protein (arrow).



MARK Antibody (C-term) (Cat. #AP7231b) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of MARK Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

#### **MARK Antibody (C-term) - Background**

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the  $\gamma$  phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The STE group (homologs of yeast Sterile 7, 11, 20 kinases) consists of 50 kinases related to the mitogen-activated protein kinase (MAPK) cascade families (Ste7/MAP2K, Ste11/MAP3K, and Ste20/MAP4K). MAP kinase cascades, consisting of a MAPK and one or more upstream regulatory kinases (MAPKKs) have been best characterized in the yeast pheromone response pathway. Pheromones bind to Ste cell surface receptors and activate yeast MAPK pathway.

#### **MARK Antibody (C-term) - References**

Drewes, G., et al., Cell 89(2):297-308 (1997).