10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

MARK Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP7231b

Specification

MARK Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	Q9P0L2
Other Accession	NP_061120

MARK Antibody (C-term) Blocking Peptide - 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 (HGNC:6896)

Target/Specificity
The synthetic peptide sequence is selected from aa 658~674 of human MARK.

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.

MARK Antibody (C-term) Blocking Peptide - Protein Information

Name MARK1 (HGNC:6896)

Function
Serine/threonine-protein kinase

MARK Antibody (C-term) Blocking Peptide - Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g 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) Blocking Peptide - References

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

(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) Blocking Peptide - Protocols

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

- Blocking Peptides