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Anti-MARK Antibody

Catalog # AP53905

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q9P0L2
Other Accession	Q7KZI7, P27448, Q96L34
Reactivity	Human, Mouse, Rat, Zebrafish
Host	Rabbit
Clonality	Polyclonal
Calculated MW	89003

Additional Information

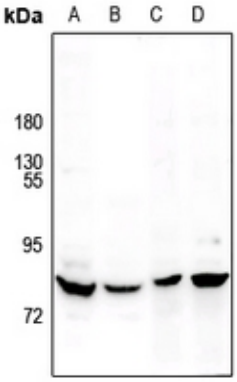
Gene ID	4139
Other Names	MARK1; KIAA1477; MARK; Serine/threonine-protein kinase MARK1; MAP/microtubule affinity-regulating kinase 1; PAR1 homolog c; Par-1c; Par1c; MARK2; EMK1; Serine/threonine-protein kinase MARK2; ELKL motif kinase 1; EMK-1; MAP/microtubule affinity-regulating kinase 2; PAR1 homolog; PAR1 homolog b; Par-1b; Par1b; MARK3; CTAK1; EMK2; MAP/microtubule affinity-regulating kinase 3; C-TAK1; cTAK1; Cdc25C-associated protein kinase 1; ELKL motif kinase 2; EMK-2; Protein kinase STK10; Ser/Thr protein kinase PAR-1; Par-1a; Serine/threonine-protein kinase p78; MARK4; KIAA1860; MARKL1; MAP/microtubule affinity-regulating kinase 4; MAP/microtubule affinity-regulating kinase-like 1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human MARK. The exact sequence is proprietary.
Dilution	WB~~1/500 - 1/1000 IHC~~1/50 - 1/200 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

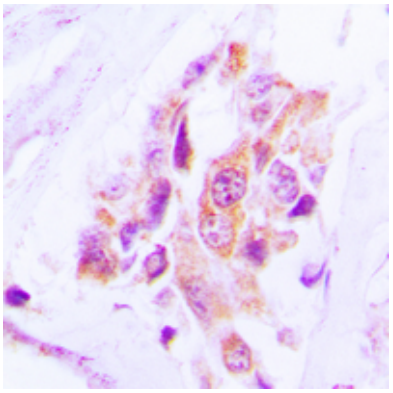
Name	MARK1 (HGNC:6896)
Function	Serine/threonine-protein kinase (PubMed: 23666762). Involved in cell polarity and microtubule dynamics regulation. Phosphorylates DCX, MAP2 and MAP4. Phosphorylates the microtubule-associated protein MAPT/TAU (PubMed:23666762). Involved in cell polarity by phosphorylating 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.

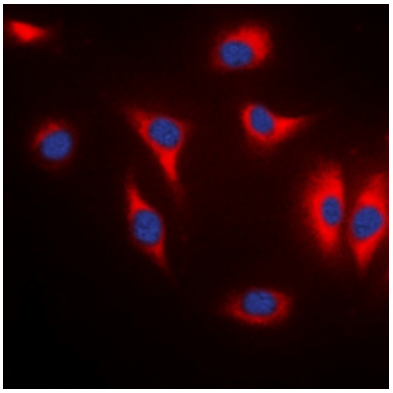
Images



Western blot analysis of MARK expression in Panc1 (A), HEK293T (B), mouse brain (C), rat brain (D) whole cell lysates. (Predicted band size: 89; 87; 84; 82 kD; Observed band size: 89 kD)

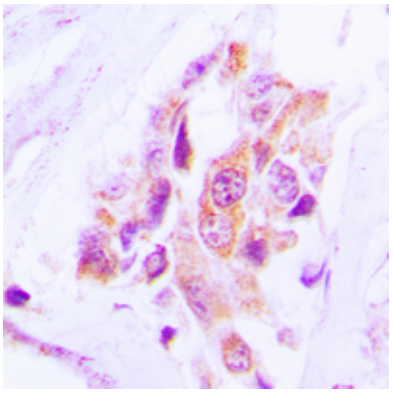


Immunohistochemical analysis of MARK staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of MARK staining in A431 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

Immunohistochemical analysis of MARK staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at



room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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