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# Anti-MARK Antibody

Catalog # AP53905

## Product Information

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| **Application** | WB, IF |
| **Primary Accession** | Q9P0L2 |
| **Other Accession** | Q7KZI7, P27448, Q96L34 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 89003 |

## Additional Information

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| **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 IF~~1/50 - 1/200 |
| **Format** | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide. |
| **Storage** | Store at -20 °C.Stable for 12 months from date of receipt |

## Protein Information

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| **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 |

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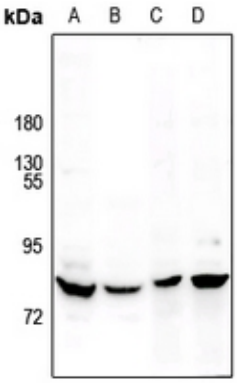
| | the regulation of neuronal migration through its dual activities in regulating cellular polarity and microtubule dynamics, possibly by phosphorylating and regulating DCX. Also acts as a positive regulator of the Wnt signaling pathway, probably by mediating phosphorylation of dishevelled proteins (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. |

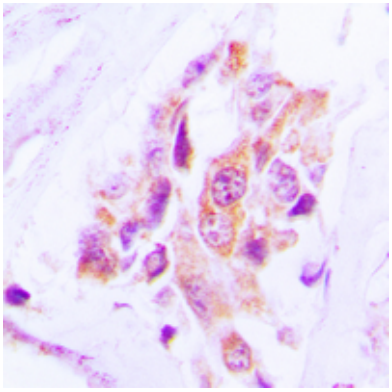
## Background

Rabbit polyclonal antibody to MARK

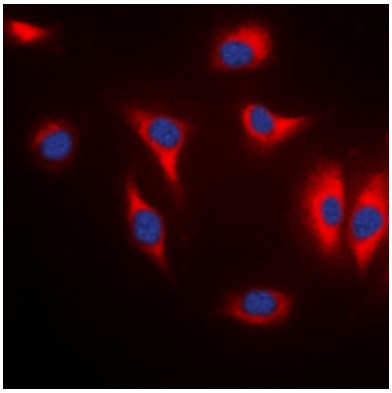
## Images




Western blot analysis of MARK expression in Panc1 (A), HEK293T (B), mouse brain (C), rat brain (D) whole cell lysates.



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).

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