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# Anti-MARK3 Antibody

Rabbit polyclonal antibody to MARK3
Catalog # AP60339

## Product Information

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|---|---|
| **Application** | WB, IF/IC, IHC |
| **Primary Accession** | P27448 |
| **Other Accession** | Q03141 |
| **Reactivity** | Human, Mouse, Rat, Zebrafish, Chicken |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 84429 |

## Additional Information

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| **Gene ID** | 4140 |
| **Other Names** | 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 |
| **Target/Specificity** | KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human MARK3. The exact sequence is proprietary. |
| **Dilution** | WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500) IF/IC~~N/A IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500) |
| **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** | MARK3 |
| **Synonyms** | CTAK1, EMK2 |
| **Function** | Serine/threonine-protein kinase (PubMed: 16822840, PubMed:16980613, PubMed:23666762). Involved in the specific phosphorylation of microtubule-associated proteins for MAP2 and MAP4. Phosphorylates the microtubule-associated protein MAPT/TAU (PubMed:23666762). Phosphorylates CDC25C on 'Ser-216' (PubMed:12941695). Regulates localization and activity of some histone deacetylases by mediating phosphorylation of HDAC7, promoting subsequent interaction between |

HDAC7 and 14-3-3 and export from the nucleus (PubMed:16980613). Regulates localization and activity of MITF by mediating its phosphorylation, promoting subsequent interaction between MITF and 14-3-3 and retention in the cytosol (PubMed:16822840). Negatively regulates the Hippo signaling pathway and antagonizes the phosphorylation of LATS1. Cooperates with DLG5 to inhibit the kinase activity of STK3/MST2 toward LATS1 (PubMed:28087714). Phosphorylates PKP2 and KSR1 (PubMed:12941695).

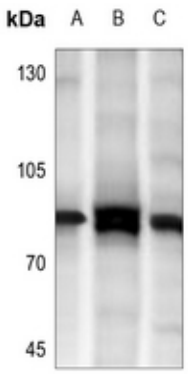
**Cellular Location** Cell membrane; Peripheral membrane protein. Cell projection, dendrite. Cytoplasm

**Tissue Location** Ubiquitous.

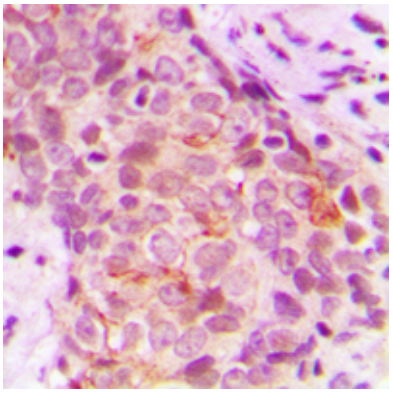
## Background

KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human MARK3. The exact sequence is proprietary.

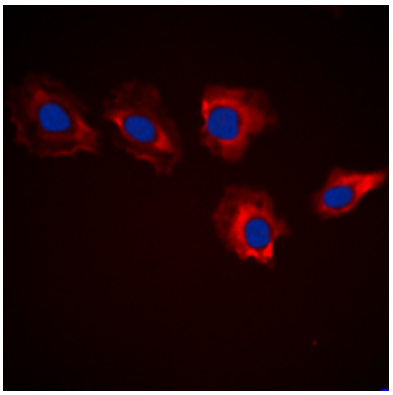
## Images




Western blot analysis of MARK3 expression in SHSY5Y (A), H9C2 (B), BV2 (C) whole cell lysates.



Immunohistochemical analysis of MARK3 staining in human breast 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 MARK3 staining in HeLa 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).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.