

Anti-MARK3 Antibody

Catalog # AP60339

Product Information

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

Additional Information

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) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500) 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	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](#)).

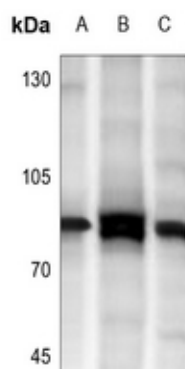
Cellular Location

Cell membrane; Peripheral membrane protein. Cell projection, dendrite. Cytoplasm

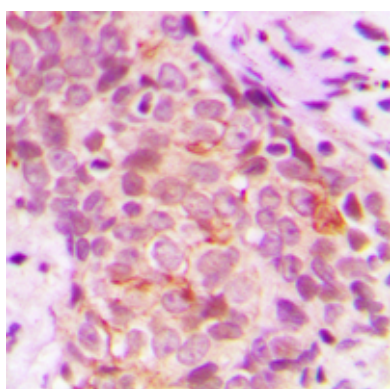
Tissue Location

Ubiquitous.

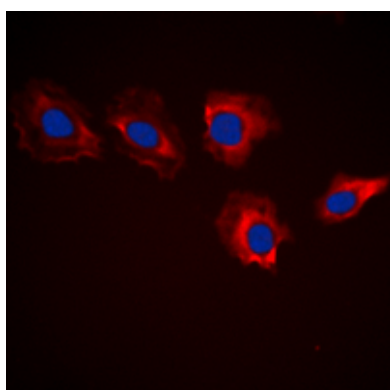
Images



Western blot analysis of MARK3 expression in SHSY5Y (A), H9C2 (B), BV2 (C) whole cell lysates. (Predicted band size: 84 kD; Observed band size: 90 kD)

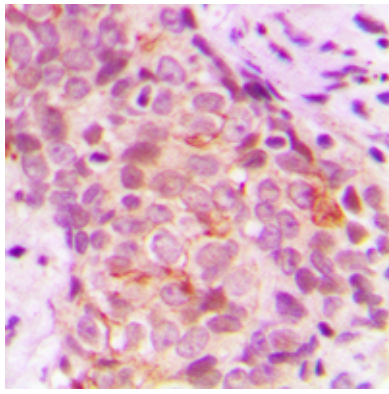


Immunohistochemical analysis of MARK3 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected 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 humidified 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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chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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