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MARK3 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP7230b

Specification

MARK3 Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P27448
Other Accession	Q8VHF0, Q03141
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**84429**
Antigen Region	**570-601**

MARK3 Antibody (C-term) - Additional Information

Gene ID 4140

Other Names
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, MARK3, CTAK1, EMK2

Target/Specificity
This MARK3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 570-601 amino acids from the C-terminal region of human MARK3.

Dilution
WB~~1:1000
IHC-P~~1:50~100

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
MARK3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

MARK3 Antibody (C-term) - 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

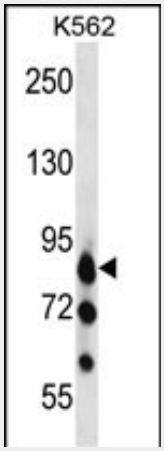
Tissue Location
Ubiquitous.

MARK3 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MARK3 Antibody (C-term) - Images



MARK3 Antibody (S569) (Cat. #AP7230b) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the MARK3 antibody detected the MARK3 protein (arrow).

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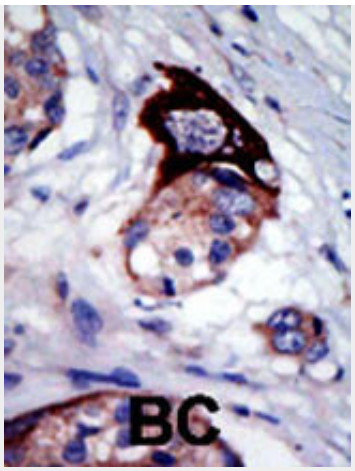

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

MARK3 Antibody (C-term) - Background

MARK proteins are involved in the specific phosphorylation of microtubule-associated proteins for tau, MAP2, and MAP4. MARK3 was originally identified as a marker that was induced by treatment with DNA damaging agents, and loss of MARK3 was found with carcinogenesis in the pancreas. MARK3 may be involved in cell cycle regulation, and alterations in the MARK3 gene may lead to carcinogenesis.

MARK3 Antibody (C-term) - References

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).
Sun, T.Q., et al., Nat. Cell Biol. 3(7):628-636 (2001).
Peng, C.Y., et al., Cell Growth Differ. 9(3):197-208 (1998).