

Rabbit MARK2 Polyclonal Antibody | anti-MARK2 antibody

MARK2 Antibody

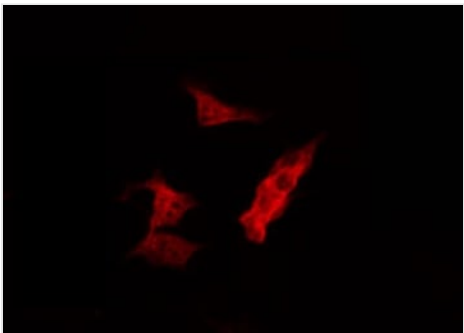
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA324023	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

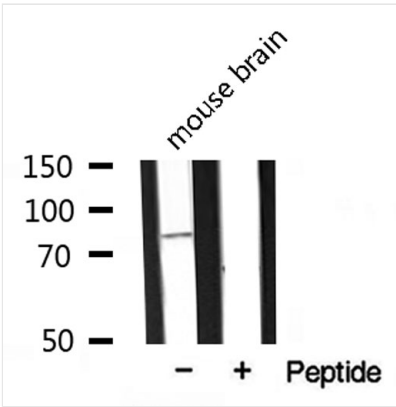
MARK2; Polyclonal Antibody; MARK2 Antibody; ELKL motif kinase 1; ELKL motif kinase; EMK-1; EMK1; MAP/microtubule affinity regulating kinase 2; MAP/microtubule affinity-regulating kinase 2; Mark2; MARK2_HUMAN; MGC99619; PAR 1; Par 1b; PAR1 homolog; Par1b; Ser/Thr protein kinase PAR 1B; Serine/threonine protein kinase EMK; Serine/threonine protein kinase MARK2; Serine/threonine-protein kinase MARK2; anti-MARK2 antibody

PRODUCT SPECIFICATIONS

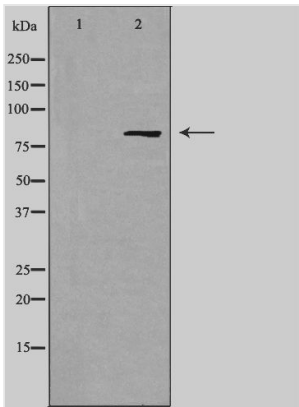
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	MARK2 antibody detects endogenous levels of total MARK2
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	788
Applicable Applications for anti-MARK2 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide
Subcellular Location	Cell Membrane. Phosphorylated by PRKCZ in polarized epithelial cells, resulting in an interaction with YWHAZ which promotes relocation from the lateral to the apical membrane.
Tissue Specificity	High levels of expression in heart, brain, skeletal muscle and pancreas, lower levels observed in lung, liver and kidney.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IF (Immunofluorescence)
AAA324023 staining HepG2 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of extracts from mouse Brian, using MARK2 antibody.



WB (Western Blot)
Western blot analysis of extracts from COS-7 cells, using MARK2 antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-MARK2 antibody	Function: Serine/threonine-protein kinase involved in cell polarity and microtubule dynamics regulation. Phosphorylates CRTC2/TORC2, DCX, HDAC7, KIF13B, MAP2, MAP4, MAPT/TAU, and RAB11FIP2. Plays a key role in cell polarity by phosphorylating the microtubule-associated proteins MAP2, MAP4 and MAPT/TAU at KXGS motifs, causing detachment from microtubules, and their disassembly. Regulates epithelial cell polarity by phosphorylating RAB11FIP2. Involved in the regulation of neuronal migration through its dual activities in regulating cellular polarity and microtubule dynamics, possibly by phosphorylating and regulating DCX. Regulates axogenesis by phosphorylating KIF13B, promoting interaction between KIF13B and 14-3-3 and inhibiting microtubule-dependent accumulation of KIF13B. Also required for neurite outgrowth and establishment of neuronal polarity. 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. Also acts as a positive regulator of the Wnt signaling pathway, probably by mediating phosphorylation of dishevelled proteins (DVL1, DVL2 and/or DVL3). Modulates the developmental decision to build a columnar versus a hepatic epithelial cell apparently by promoting a switch from a direct to a transcytotic mode of apical protein delivery. Essential for the asymmetric development of membrane domains of polarized epithelial cells. Subunit Structure: Homodimer. Interacts with PAK5; leading to inhibit the protein kinase activity (By similarity). Interacts with MTCL1 isoform 1; the interaction is direct and increases MARK2 microtubule-binding ability. Interacts (when phosphorylated at Thr-596) with YWHAZ. In case of infection, interacts with H.pylori CagA, leading to inhibit kinase activity and junctional and polarity defects. Post-translational Modifications: Autophosphorylated. Phosphorylated at Thr-208 by STK11/LKB1 in complex with STE20-related adapter-alpha (STRADA) pseudo kinase and CAB39. Phosphorylation at Thr-208 by TAOK1 activates the kinase activity, leading to phosphorylation and detachment of MAPT/TAU from microtubules. Phosphorylation at Ser-212 by GSK3-beta (GSK3B) inhibits the kinase activity. Phosphorylation by CaMK1 promotes activity and is required to promote neurite outgrowth. Phosphorylation at Thr-596 by PRKCZ/aPKC in polarized epithelial cells inhibits the kinase activity and promotes binding to 14-3-3 protein YWHAZ, leading to relocation from cell membrane to cytoplasm. Similarity: The UBA domain does not seem to bind ubiquitin and ubiquitin-like and might play a role in regulating the enzyme conformation and localization. Activation of the kinase activity following phosphorylation at Thr-208 is accompanied by a conformational change that alters the orientation of the UBA domain with respect to the catalytic domain.The KA1 domain mediates binding to phospholipids and targeting to membranes. Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. SNF1 subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	254028234
NCBI GeneID	2011
NCBI Accession #	NP_001034558.2
NCBI GenBank Nucleotide #	NM_001039469.2
UniProt Accession #	Q7KZI7; Q15449; Q15524; Q5XGA3; Q68A18; Q96HB3; Q96RG0
Molecular Weight	Observed: 85 kD Predicted: 88 kDa
NCBI Official Full Name	serine/threonine-protein kinase MARK2 isoform d
NCBI Official Synonym Full Names	microtubule affinity regulating kinase 2
NCBI Official Symbol	MARK2
NCBI Official Synonym Symbols	EMK1; EMK-1; PAR-1; Par1b; Par-1b
NCBI Protein Information	serine/threonine-protein kinase MARK2
UniProt Protein Name	Serine/threonine-protein kinase MARK2
UniProt Gene Name	MARK2
UniProt Synonym Gene Names	EMK-1; Par-1b; Par1b

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/mark2-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/324023>