

Rabbit MARK1/2/3/4 Polyclonal Antibody | anti-MARK1/2/3/4 antibody

Phospho-MARK1/2/3/4 (Thr215) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329668	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

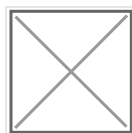
MARK1/2/3/4; Polyclonal Antibody; Phospho-MARK1/2/3/4 (Thr215) Antibody; KIAA1477; MAP/microtubule affinity regulating kinase 1; MAP/microtubule affinity-regulating kinase 1; MARK 1; MARK; Mark1; MARK1_HUMAN; MGC126512; MGC126513; Serine/threonine protein kinase MARK1; Serine/threonine-protein kinase MARK1; 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; C-TAK1; Cdc25C associated protein kinase 1; Cdc25C-associated protein kinase 1; cTAK1; ELKL motif kinase 2; EMK-2; Emk2; ETK 1; KIAA4230; KP78; MAP microtubule affinity regulating kinase 3; MAP/microtubule affinity-regulating kinase 3; Mark3; MARK3_HUMAN; Par 1a; PAR1A; Protein kinase STK10; Ser/Thr protein kinase PAR-1; Serine threonine protein kinase p78; Serine/threonine-protein kinase p78; SerThr protein kinase PAR 1; FLJ90097; KIAA1860; MAP/microtubule affinity regulating kinase 4; MAP/microtubule affinity regulating kinase 4L; MAP/microtubule affinity regulating kinase like 1; MAP/microtubule affinity-regulating kinase 4; MAP/microtubule affinity-regulating kinase-like 1; MARK 4; MARK 4L; MARK L1; MARK4; MARK4 serine/threonine protein kinase; MARK4_HUMAN; MARK4S; MARKL 1; MARKL1; Nbla00650; Putative protein product of Nbla00650; anti-MARK1/2/3/4 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-MARK1/2/3/4 (Thr215) Antibody detects endogenous levels of MARK1/2/3/4 only when phosphorylated at Thr215. Tissue Specificity: Ubiquitous. Isoform 2 is brain-specific. Expressed at highest levels in brain and testis. Also expressed in heart, lung, liver, muscle, kidney and spleen.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-MARK1/2/3/4 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human MARK1/2/3/4 around the phosphorylation site of Thr215.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Ubiquitinated with 'Lys-29'- and 'Lys-33'-linked polyubiquitins which appear to impede LKB1-mediated phosphorylation. Deubiquitinated by USP9X. Phosphorylated at Thr-214 by STK11/LKB1 in complex with STE20-related adapter-alpha (STRADA) pseudo kinase and CAB39. Phosphorylated throughout the cell cycle.
Subunit Structure	Interacts with MAPT/TAU. Interacts with gamma-tubulin. Interacts with ODF2. Interacts with USP9X. Interacts with YWHAQ.

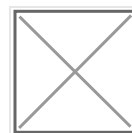
Similarity	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. SNF1 subfamily.
Subcellular Location	Cytoplasm>Cytoskeleton>Microtubule organizing center>Centrosome. Cytoplasm>Cytoskeleton>Microtubule organizing center. Cytoplasm>Cytoskeleton>Cilium basal body. Cytoplasm>Cytoskeleton>Cilium axoneme. Cytoplasm. Cell projection>Dendrite. Note: Localized at the tips of neurite-like processes in differentiated neuroblast cells. Detected in the cytoplasm and neuropil of the hippocampus.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



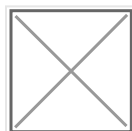
IHC (Immunohistochemistry)

At 1/200 staining Human kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



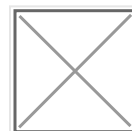
IHC (Immunohistochemistry)

At 1/200 staining Mouse heart tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

Staining Rat lung tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of MARK1/2/3/4 (Phospho-Thr215) using HeLa whole cell lysates. -/+ means absence or presence of N peptide (non-phospho peptide) and P peptide (phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-MARK1/2/3/4 antibody	Serine/threonine-protein kinase. Phosphorylates the microtubule-associated protein MAPT/TAU. Also phosphorylates the microtubule-associated proteins MAP2 and MAP4. Involved in regulation of the microtubule network, causing reorganization of microtubules into bundles. Required for the initiation of axoneme extension during cilium assembly. Regulates the centrosomal location of ODF2 and phosphorylates ODF2 in vitro. Plays a role in cell cycle progression, specifically in the G1/S checkpoint. Reduces neuronal cell survival. Plays a role in energy homeostasis by regulating satiety and metabolic rate (By similarity). Promotes adipogenesis by activating JNK1 and inhibiting the p38MAPK pathway, and triggers apoptosis by activating the JNK1 pathway (By similarity). Phosphorylates mTORC1 complex member RPTOR and acts as a negative regulator of the mTORC1 complex, probably due to disruption of the interaction between phosphorylated RPTOR and the RRAGA/RRAGC heterodimer which is required for mTORC1 activation.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	153791472
NCBI GeneID	4139
NCBI Accession #	NP_061120.3
NCBI GenBank Nucleotide #	NM_018650.4
UniProt Accession #	Q9P0L2; Q7KZI7; P27448; Q96L34
Molecular Weight	84,911 Da
NCBI Official Full Name	serine/threonine-protein kinase MARK1 isoform 2
NCBI Official Synonym Full Names	MAP/microtubule affinity-regulating kinase 1
NCBI Official Symbol	MARK1

NCBI Official Synonym Symbols	MARK; Par1c; Par-1c
NCBI Protein Information	serine/threonine-protein kinase MARK1; PAR1 homolog c
UniProt Protein Name	Serine/threonine-protein kinase MARK1
UniProt Gene Name	MARK1
UniProt Synonym Gene Names	Par-1c; Par1c
UniProt Entry Name	MARK1_HUMAN

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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/mark1-2-3-4-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/329668>