MARK2 Antibody – Rabbit Monoclonal

PRODUCT OVERVIEW

Product Name	MARK2, Monoclonal Antibody
Full Product Name	MARK2 Conjugated Antibody
Product Gene Name	anti-MARK2 antibody
Product Synonym Names	ELKL motif kinase 1 antibody; ELKL motif kinase antibody; EMK-1 antibody; EMK1 antibody; MAP/microtubule affinity regulating kinase 2 antibody; MAP/microtubule affinity-regulating kinase 2 antibody; Mark2 antibody; MARK2_HUMAN antibody; MGC99619 antibody; PAR 1 antibody; Par 1b antibody; PAR1 homolog antibody; Par1b antibody; Ser/Thr protein kinase PAR 1B antibody; Serine/threonine protein kinase EMK antibody; Serine/threonine protein kinase MARK2 antibody; Serine/threonine-protein kinase MARK2 antibody
Clonality	Monoclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Preparation and Storage	Store at 4 degree C for 6 months.
Molecular Weight	87,911 Da
Chromosome Location	Chromosome: 11; NC_000011.9 (63606400..63678492). Location: 11q13.1
OMIM	600526
3D Structure	ModBase 3D Structure for Q7KZI7
Antibody Type	Recombinant Antibody
Immunogen	Recombinant protein near the C-terminus of human MARK2.
Conjugation	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Excitation Emission	AF350: 346nm/442nm
Applications Tested/Suitable for anti-MARK2 antibody	Most Applications
Application Notes for anti-MARK2 antibody	Suggested Dilution: AF350 conjugated: most applications: 1:50-1:250 AF405 conjugated: most applications: 1:50-1:250 AF488 conjugated: most applications: 1:50-1:250 AF555 conjugated: most applications: 1:50-1:250 AF594 conjugated: most applications: 1:50-1:250 AF647 conjugated: most applications: 1:50-1:250 AF680 conjugated: most applications: 1:50-1:250 AF750 conjugated: most applications: 1:50-1:250 Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1:50-1:1000
Related Product Information for anti-MARK2 antibody	Microtubule affinity-regulating kinase 2 (MARK2), also known as EMK1 (ELKL motif kinase 1) or Par1b, is a 788 amino acid protein that is a member of the protein kinase superfamily, MARK subfamily. Highly expressed in heart, brain, skeletal muscle and pancreas, MARK2 is essential for the asymmetric development of membrane domains around polarized epithelial cells. Activation of MARK2 by phosphorylation on Thr 208 allows the protein to modulate the building of a columnar versus a hepatic epithelial cell. MARK2 contains one KA1 (kinase-associated) domain, one protein kinase domain and one UBA domain. MARK2 is expressed as 14 isoforms produced by alternative splicing events. Some of these isoforms may function in graft rejection.

Other Notes	Small volumes of anti-MARK2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for MARK2 purchase	MBS9457561 is an antibody targeting MARK2. Also known as MARK2 Conjugated Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MARK2. It may not necessarily be applicable to this product.

NCBI GI #	254028234
NCBI GeneID	2011
NCBI Accession #	NP_001034558.2
UniProt Primary Accession #	Q7KZI7
UniProt Secondary Accession #	Q15449; Q15524; Q5XGA3; Q68A18; Q96HB3; Q96RG0
UniProt Related Accession #	Q7KZI7
GenBank Nucleotide #	NM_001039469.2
NCBI Official Full Name	serine/threonine-protein kinase MARK2 isoform d
NCBI Official Synonym Full Names	MAP/microtubule affinity-regulating kinase 2
NCBI Official Symbol	MARK2
NCBI Official Synonym Symbols	EMK1; EMK-1; PAR-1; Par1b; Par-1b
UniProt Protein Name	Serine/threonine-protein kinase MARK2
UniProt Synonym Protein Names	ELKL motif kinase 1; EMK-1; MAP/microtubule affinity-regulating kinase 2; PAR1 homolog; PAR1 homolog b
Protein Family	Serine/threonine-protein kinase
UniProt Gene Name	MARK2
UniProt Synonym Gene Names	EMK1; EMK-1; Par-1b; Par1b
UniProt Entry Name	MARK2_HUMAN
NCBI Protein Information	serine/threonine-protein kinase MARK2; PAR1 homolog b; ELKL motif kinase 1; Ser/Thr protein kinase PAR-1B; serine/threonine protein kinase EMK
NCBI Summary for MARK2	This gene encodes a member of the Par-1 family of serine/threonine protein kinases. The protein is an important regulator of cell polarity in epithelial and neuronal cells, and also controls the stability of microtubules through phosphorylation and inactivation of several microtubule-associating proteins. The protein localizes to cell membranes. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2009]

UniProt Comments for MARK2	MARK2: a CAMK protein kinase of the CAMKL group. Plays a role in epithelial morphogenesis. 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. One or more isoforms may play a role in graft rejection. 12 isoforms of the human protein are produced by alternative promoter. Protein type: EC 2.7.11.26; Kinase, protein; Protein kinase, Ser/Thr (non-receptor); Protein kinase, CAMK; EC 2.7.11.1; CAMK group; CAMKL family; MARK subfamily Chromosomal Location of Human Ortholog: 11q13.1 Cellular Component: mitochondrion; membrane; plasma membrane; actin filament; basal cortex; nucleus; lateral plasma membrane Molecular Function: protein serine/threonine kinase activity; protein binding; tau-protein kinase activity; magnesium ion binding; protein kinase activator activity; lipid binding; ATP binding Biological Process: establishment and/or maintenance of epithelial cell polarity; Wnt receptor signaling pathway; establishment of cell polarity; protein amino acid autophosphorylation; mitochondrion degradation; activation of protein kinase activity; peptidyl-threonine phosphorylation; neuron migration; mitochondrion localization; regulation of axonogenesis; protein amino acid phosphorylation; regulation of cytoskeleton organization and biogenesis
Research Articles on MARK2	**1.** automated image analysis of MT assembly dynamics identified MARK2 as a target regulated downstream of Rac1 that promotes oriented MT growth in the leading edge to mediate directed cell migration.
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