10320 Camino Santa Fe, Suite G
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MARK4 Antibody (aa461-510)

Rabbit Polyclonal Antibody

Catalog # ALS14297

Specification

MARK4 Antibody (aa461-510) - Product Information

Application	**IF, IHC**
Primary Accession	Q96L34
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**83kDa KDa**

MARK4 Antibody (aa461-510) - Additional Information

Gene ID 57787

Other Names
MAP/microtubule affinity-regulating kinase 4, 2.7.11.1, MAP/microtubule affinity-regulating kinase-like 1, MARK4, KIAA1860, MARKL1

Target/Specificity
MARK4 Antibody detects endogenous levels of total MARK4 protein.

Reconstitution & Storage
Store at -20°C.

Precautions
MARK4 Antibody (aa461-510) is for research use only and not for use in diagnostic or therapeutic procedures.

MARK4 Antibody (aa461-510) - Protein Information

Name MARK4 {ECO:0000303|PubMed:14594945, ECO:0000312|HGNC:HGNC:13538}

Function
Serine/threonine-protein kinase (PubMed:15009667, PubMed:14594945, PubMed:23666762, PubMed:23184942). Phosphorylates the microtubule-associated protein MAPT/TAU (PubMed:14594945, PubMed:23666762). Also phosphorylates the microtubule-associated proteins MAP2 and MAP4 (PubMed:14594945). Involved in regulation of the microtubule network, causing reorganization of microtubules into bundles (PubMed:14594945, PubMed:25123532).

Required for the initiation of axoneme extension during cilium assembly (PubMed:23400999). Regulates the centrosomal location of ODF2 and phosphorylates ODF2 in vitro (PubMed:23400999). Plays a role in cell cycle progression, specifically in the G1/S checkpoint (PubMed:25123532). Reduces neuronal cell survival (PubMed:15009667). 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 (PubMed:23184942). Involved in NLRP3 positioning along microtubules by mediating NLRP3 recruitment to microtubule organizing center (MTOC) upon inflammasome activation (PubMed:28656979).

Cellular 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

Tissue Location
Ubiquitous. Isoform 2 is brain-specific (PubMed:11326310). Expressed at highest levels in brain and testis Also expressed in heart, lung, liver, muscle, kidney and spleen (PubMed:14594945).

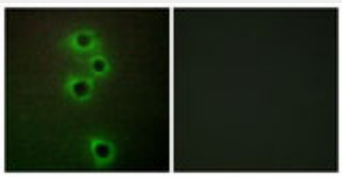
Volume
50 µl

MARK4 Antibody (aa461-510) - Protocols

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

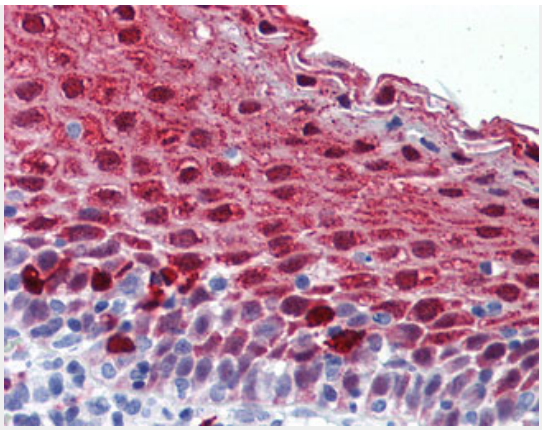
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MARK4 Antibody (aa461-510) - Images



Immunofluorescence of A549 cells, using MARK4 Antibody.

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Anti-MARK4 antibody IHC of human tonsil.

MARK4 Antibody (aa461-510) - References

Drewes G.,et al.Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.
Kato T.,et al.Neoplasia 3:4-9(2001).
Beghini A.,et al.Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.
Nagase T.,et al.DNA Res. 8:85-95(2001).
Ota T.,et al.Nat. Genet. 36:40-45(2004).