

CAMK4 Antibody (clone 1A3)
Mouse Monoclonal Antibody
Catalog # ALS14315**Specification**

CAMK4 Antibody (clone 1A3) - Product Information

Application	WB, IF
Primary Accession	Q16566
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	52kDa KDa

CAMK4 Antibody (clone 1A3) - Additional Information**Gene ID** 814**Other Names**

Calcium/calmodulin-dependent protein kinase type IV, CaMK IV, 2.7.11.17, CaM kinase-GR, CAMK4, CAMK, CAMK-GR, CAMKIV

Target/Specificity

Human CAMK4

Reconstitution & Storage

Aliquot and store at -20°C or -80°C. Avoid freeze-thaw cycles.

Precautions

CAMK4 Antibody (clone 1A3) is for research use only and not for use in diagnostic or therapeutic procedures.

CAMK4 Antibody (clone 1A3) - Protein Information**Name** CAMK4**Synonyms** CAMK, CAMK-GR, CAMKIV**Function**

Calcium/calmodulin-dependent protein kinase that operates in the calcium-triggered CaMKK-CaMK4 signaling cascade and regulates, mainly by phosphorylation, the activity of several transcription activators, such as CREB1, MEF2D, JUN and RORA, which play pivotal roles in immune response, inflammation, and memory consolidation. In the thymus, regulates the CD4(+)/CD8(+) double positive thymocytes selection threshold during T-cell ontogeny. In CD4 memory T-cells, is required to link T-cell antigen receptor (TCR) signaling to the production of IL2, IFNG and IL4 (through the regulation of CREB and MEF2). Regulates the differentiation and survival phases of osteoclasts and dendritic cells (DCs). Mediates DCs survival by linking TLR4 and the regulation of temporal expression of BCL2. Phosphorylates the transcription activator CREB1 on 'Ser-133' in hippocampal neuron nuclei and contribute to memory consolidation and long term potentiation

(LTP) in the hippocampus. Can activate the MAP kinases MAPK1/ERK2, MAPK8/JNK1 and MAPK14/p38 and stimulate transcription through the phosphorylation of ELK1 and ATF2. Can also phosphorylate in vitro CREBBP, PRM2, MEF2A and STMN1/OP18.

Cellular Location

Cytoplasm. Nucleus. Note=Localized in hippocampal neuron nuclei. In spermatids, associated with chromatin and nuclear matrix (By similarity).

Tissue Location

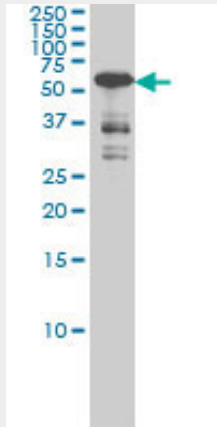
Expressed in brain, thymus, CD4 T-cells, testis and epithelial ovarian cancer tissue.

CAMK4 Antibody (clone 1A3) - Protocols

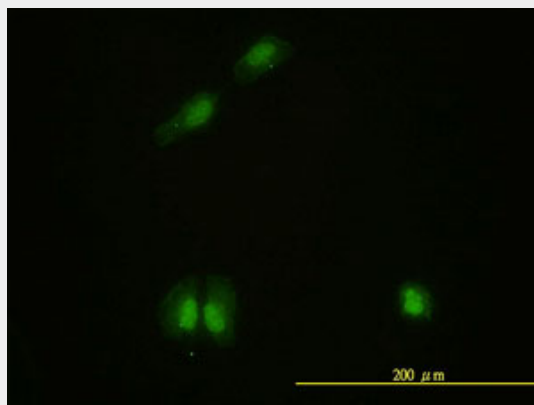
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CAMK4 Antibody (clone 1A3) - Images



Western blot of CAMK4 expression in Jurkat cell lysate.



Immunofluorescence of monoclonal antibody to CAMK4 on HeLa cell. [antibody concentration 10 ug/ml]

CAMK4 Antibody (clone 1A3) - Background

Calcium/calmodulin-dependent protein kinase that operates in the calcium-triggered CaMKK-CaMK4 signaling cascade and regulates, mainly by phosphorylation, the activity of several transcription activators, such as CREB1, MEF2D, JUN and RORA, which play pivotal roles in immune response, inflammation, and memory consolidation. In the thymus, regulates the CD4(+)/CD8(+) double positive thymocytes selection threshold during T-cell ontogeny. In CD4 memory T-cells, is required to link T-cell antigen receptor (TCR) signaling to the production of IL2, IFNG and IL4 (through the regulation of CREB and MEF2). Regulates the differentiation and survival phases of osteoclasts and dendritic cells (DCs). Mediates DCs survival by linking TLR4 and the regulation of temporal expression of BCL2. Phosphorylates the transcription activator CREB1 on 'Ser-133' in hippocampal neuron nuclei and contribute to memory consolidation and long term potentiation (LTP) in the hippocampus. Can activate the MAP kinases MAPK1/ERK2, MAPK8/JNK1 and MAPK14/p38 and stimulate transcription through the phosphorylation of ELK1 and ATF2. Can also phosphorylate in vitro CREBBP, PRM2, MEF2A and STMN1/OP18.

CAMK4 Antibody (clone 1A3) - References

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