

CAMK4 Antibody (aa305-323) Rabbit Polyclonal Antibody Catalog # ALS11303

Specification

CAMK4 Antibody (aa305-323) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW IHC <u>Q16566</u> Human, Mouse, Rat, Bovine, Dog Rabbit Polyclonal 52kDa KDa

CAMK4 Antibody (aa305-323) - 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 Amino acids 305-323 of Human CaM Kinase IV protein.

Reconstitution & Storage +4°C or -20°C, Avoid repeated freezing and thawing.

Precautions CAMK4 Antibody (aa305-323) is for research use only and not for use in diagnostic or therapeutic procedures.

CAMK4 Antibody (aa305-323) - 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.

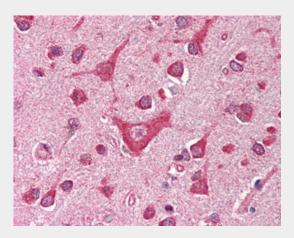
Volume 50 μl

CAMK4 Antibody (aa305-323) - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

CAMK4 Antibody (aa305-323) - Images



Anti-CAMK4 antibody IHC of human brain, cortex.

CAMK4 Antibody (aa305-323) - Background

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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 (aa305-323) - References

Kitani T.,et al.J. Biochem. 115:637-640(1994). Bland M.M.,et al.Gene 142:191-197(1994). Mosialos G.,et al.J. Virol. 68:1697-1705(1994). Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases. Hanissian S.H.,et al.J. Biol. Chem. 268:20055-20063(1993).