

CAMK4 Antibody (aa166-215)

Rabbit Polyclonal Antibody Catalog # ALS15077

Specification

CAMK4 Antibody (aa166-215) - Product Information

Application IF, WB Primary Accession O16566

Reactivity Human, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Calculated MW 52kDa KDa

CAMK4 Antibody (aa166-215) - 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

CaMK4 Antibody detects endogenous levels of total CaMK4 protein.

Reconstitution & Storage

Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

Precautions

CAMK4 Antibody (aa166-215) is for research use only and not for use in diagnostic or therapeutic procedures.

CAMK4 Antibody (aa166-215) - 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

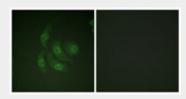
50 µl

CAMK4 Antibody (aa166-215) - Protocols

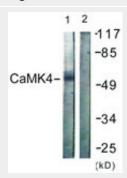
Provided below are standard protocols that you may find useful for product applications.

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

CAMK4 Antibody (aa166-215) - Images



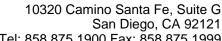
Immunofluorescence of HepG2 cells, using CaMK4 Antibody.



Western blot of extracts from K562 cells, treated with H2O2 100 uM 30', using CaMK4 Antibody.

CAMK4 Antibody (aa166-215) - Background

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CAMK4 Antibody (aa166-215) - 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).