10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CAMK4 antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI14659

Product Information

Application	WB
Primary Accession	Q16566
Other Accession	NM_001744, NP_001735
Reactivity	Human, Mouse, Rat, Zebrafish, Dog, Horse
Predicted	Human, Mouse, Rat, Zebrafish, Pig, Chicken, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	51926

Additional Information

Gene ID	814
Alias Symbol	CaMK-GR, MGC36771, IV, caMK, CaMK IV
Other Names	Calcium/calmodulin-dependent protein kinase type IV, CaMK IV, 2.7.11.17, CaM kinase-GR, CAMK4, CAMK, CAMK-GR, CAMKIV
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-CAMK4 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	CAMK4 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

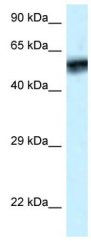
Name	CAMK4
Synonyms	CAMK, CAMK-GR, CAMKIV
Function	Calcium/calmodulin-dependent protein kinase that operates in the calcium-triggered CaMKK-CaMK4 signaling cascade and regulates, mainly by phosphorylation, the activity of several transcription activators, such as CREB1, MEF2D, JUN and RORA, which play 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.

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).

Images



WB Suggested Anti-CAMK4 Antibody Titration: 1.0 µg/ml
Positive Control: ACHN Whole Cell

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.