

CAMKIV (CAMK4) Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP7211a**Specification****CAMKIV (CAMK4) Antibody (C-term) Blocking peptide - Product Information**Primary Accession [Q16566](#)**CAMKIV (CAMK4) Antibody (C-term) Blocking peptide - Additional Information****Gene ID 814****Other Names**

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

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7211a](/product/products/AP7211a) was selected from the C-term region of human CAMK4 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CAMKIV (CAMK4) Antibody (C-term) Blocking peptide - Protein Information**Name CAMK4****CAMKIV (CAMK4) Antibody (C-term) Blocking peptide - Background**

CAMK4 belongs to the serine/threonine protein kinase family, and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. This enzyme is a multifunctional serine/threonine protein kinase with limited tissue distribution, that has been implicated in transcriptional regulation in lymphocytes, neurons and male germ cells.

CAMKIV (CAMK4) Antibody (C-term) Blocking peptide - References

Takai, N., et al., Cancer Lett. 183(2):185-193 (2002).Kang, H., et al., Cell 106(6):771-783 (2001).Wu, J.Y., et al., Nat. Genet. 25(4):448-452 (2000).Mosialos, G., et al., J. Virol. 68(3):1697-1705 (1994).Kitani, T., et al., J. Biochem. 115(4):637-640 (1994).

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.

**CAMKIV (CAMK4) Antibody (C-term)
Blocking peptide - Protocols**

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

- [Blocking Peptides](#)