

## **CAMKIV Antibody**

Rabbit mAb Catalog # AP91680

# **Specification**

# **CAMKIV Antibody - Product Information**

Application WB, IHC, FC, ICC, IP

Primary Accession Q16566
Clonality Monoclonal

**Other Names** 

CAM kinase 4; CAM kinase GR; CAM kinase IV; CAM kinase-GR; CaMK 4; CAMK GR; CaMK IV;

Camk4; CaMKGR; IV; KCC4\_HUMAN;

Isotype Rabbit IgG
Host Rabbit
Calculated MW 51926 Da

# **CAMKIV Antibody - Additional Information**

Dilution WB~~1:1000

IHC~~1:100~500 FC~~1:10~50 ICC~~N/A IP~~N/A

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human

**CAMKIV** 

Description Calcium/calmodulin-dependent protein

kinase belonging to a proposed

calcium-triggered signaling cascade. May be involved in transcriptional regulation.

May be involved in regulation of microtubule dynamics. In vitro,

phosphorylates CREB1, CREBBP, PRM2,

MEF2A, MEF2D and STMN1/OP18.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline,

pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid

freeze / thaw cycle.

### **CAMKIV Antibody - 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**

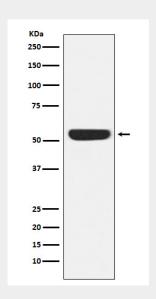
Expressed in brain, thymus, CD4 T-cells, testis and epithelial ovarian cancer tissue.

### **CAMKIV Antibody - Protocols**

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

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

## **CAMKIV Antibody - Images**



Western blot analysis of CAMKIV expression in Jurkat cell lysate.