

## DATASHEET

# CaMK4 Mouse Monoclonal Antibody(C2575)

CAT. NO. AMA02187

### KEY FEATURES

Target	CaMK4	Source / Host	Mouse
Reactivity	Human	Clonality	Monoclonal
Applications	WB, IHC, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

### BACKGROUND

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.

### APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:100 - 1:500
IF/ICC	1:100 - 1:500

\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

### PRODUCT OVERVIEW

Description	Mouse monoclonal to CaMK4
Specificity	Recognizes endogenous levels of CaMK4 protein
Antibody Type	Primary antibody
Immunogen	Recombinant fusion protein of human CaMK4 expressed in E. Coli
Purification	This antibody is purified through a protein G column.
Molecular Weight	Predicted: 58 kD; Observed: 58 kD
Form/Buffer	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	CAMK; CAMK-GR; CAMKIV; Calcium/calmodulin-dependent protein kinase type IV; CaMK IV; CaM kinase-GR
Gene Symbol	CAMK4
Entrez Gene	814(Human)
SwissProt	Q16566(Human)

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

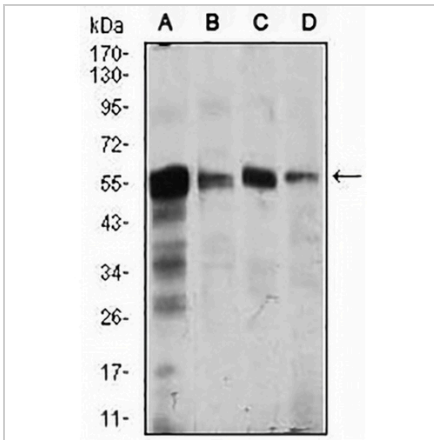
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

**DATASHEET**

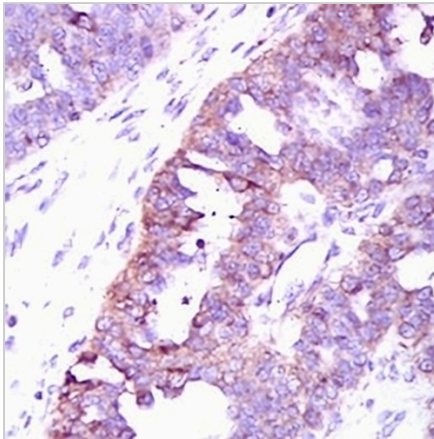
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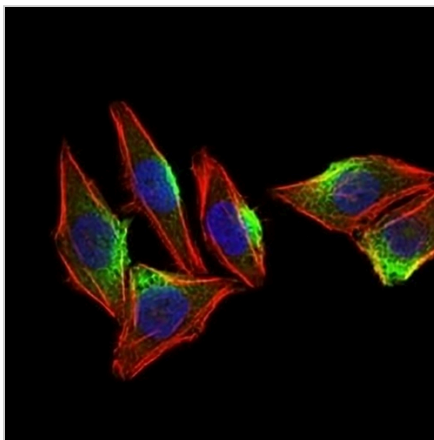
**DATA**



Western blot analysis of CaMK4 expression in Jurkat (A), SKNSH (B), Raji (C), HeLa (D) whole cell lysates. (Predicted band size: 58 kD; Observed band size: 58 kD)



Immunohistochemical analysis of CaMK4 staining in human ovarian cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of CaMK4 staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with an AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.