# CaMKIV Monoclonal Antibody

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| **Catalog No** | YP-mAb-14689 |
| **Isotype** | IgG |
| **Reactivity** | Human;Mouse;Rat |
| **Applications** | WB |
| **Gene Name** | CAMK4 |
| **Protein Name** | Calcium/calmodulin-dependent protein kinase type IV |
| **Immunogen** | The antiserum was produced against synthesized peptide derived from human CaMK4. AA range:166-215 |
| **Specificity** | CaMKIV Monoclonal Antibody detects endogenous levels of CaMKIV protein. |
| **Formulation** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |
| **Source** | Monoclonal, Mouse,IgG |
| **Purification** | The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen. |
| **Dilution** | WB 1:500-1:2000 |
| **Concentration** | 1 mg/ml |
| **Purity** | ≥90% |
| **Storage Stability** | -20°C/1 year |
| **Synonyms** | CAMK4; CAMK; CAMK-GR; CAMKIV; Calcium/calmodulin-dependent protein kinase type IV; CaMK IV; CaM kinase-GR |
| **Observed Band** | 60kD |
| **Cell Pathway** | Cytoplasm. Nucleus. Localized in hippocampal neuron nuclei. In spermatids, associated with chromatin and nuclear matrix (By similarity). . |
| **Tissue Specificity** | Expressed in brain, thymus, CD4 T-cells, testis and epithelial ovarian cancer tissue. |
| **Function** | catalytic activity:ATP + a protein = ADP + a phosphoprotein.,enzyme regulation:Activated by Ca(2+)/calmodulin. Binding of calmodulin may releave intrasteric autoinhibition. Must be phosphorylated to be maximally active. Phosphorylated by CAMKK1 or CAMKK2. Autophosphorylation of the N-terminus is required for full activation. In part, activity is independent on Ca(2+)/calmodulin and autophosphorylation of Ser-336 allows to switch to a Ca(2+)/calmodulin-independent state (By similarity). Probably inactivated by serine/threonine protein phosphatase 2A.,function: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. May be involved in spermatogenesis. May play a role i |

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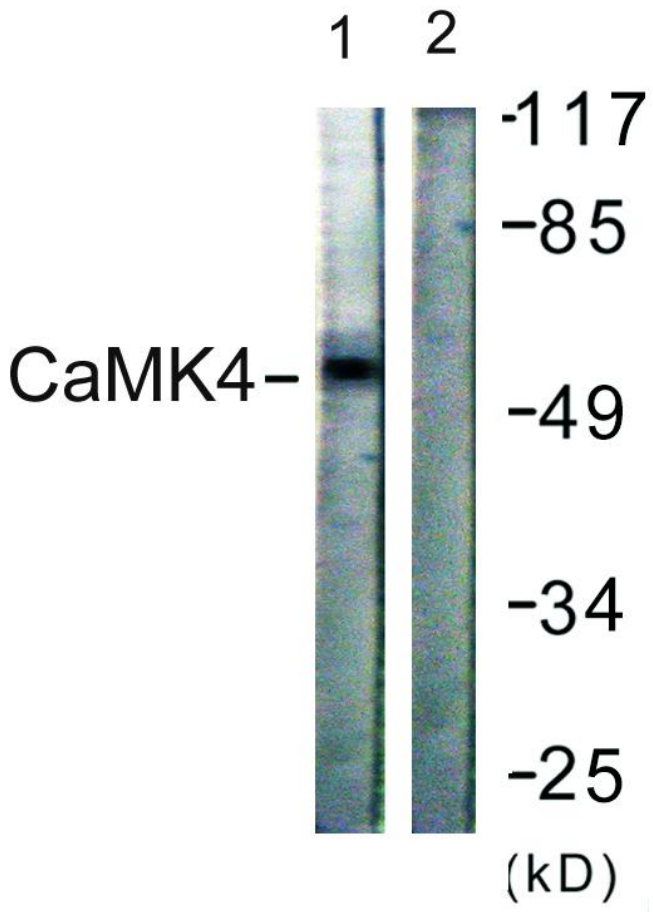
| **Background** | The product of this gene belongs to the serine/threonine protein kinase family, and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. This enzyme is a multifunctional serine/threonine protein kinase with limited tissue distribution, that has been implicated in transcriptional regulation in lymphocytes, neurons and male germ cells. [provided by RefSeq, Jul 2008], |
| **matters needing attention** | Avoid repeated freezing and thawing! |
| **Usage suggestions** | This product can be used in immunological reaction related experiments. For more information, please consult technical personnel. |

## Products Images




Western Blot analysis of various cells using CaMKIV Monoclonal Antibody