

## Product datasheet for **TA319475**

### Camk4 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	ELISA: 1:5,000 - 1:25,000, WB: 1:500 - 1:2,000
Reactivity:	Human, Mouse, Rat, Dog, Bovine, Chimpanzee
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	This antiserum was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 305-323 of Human CaM Kinase IV protein.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	calcium/calmodulin-dependent protein kinase IV
Database Link:	<a href="#">NP_036859</a> <a href="#">Entrez Gene 814 Human</a> <a href="#">Entrez Gene 12326 Mouse</a> <a href="#">Entrez Gene 100684140 Dog</a> <a href="#">Entrez Gene 25050 Rat</a> <a href="#">P13234</a>
Synonyms:	CaMK-GR; MGC36771



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**Note:** CaM Kinase IV (also known as CAM kinase-GR and CaMK IV) is a calcium/ calmodulin-dependent protein kinase belonging to a proposed calcium-triggered signaling cascade. This kinase may be involved in the transcriptional regulation of microtubule dynamics. In vitro, CaMK IV phosphorylates CREB1, CREBBP, PRM2, MEF2A, MEF2D and STMN1/OP18. CaMK IV may also be involved in spermatogenesis and may play a role in the consolidation/ retention of hippocampus-dependent long-term memory. CaMK IV must be phosphorylated to be maximally active and is phosphorylated by CAMKK1 or CAMKK2. In addition autophosphorylation of the N-terminus is required for full activation. Autophosphorylation of Ser-336 allows the kinase to switch to a Ca(2+)/calmodulin-independent state. Most likely the kinase is inactivated by the serine/ threonine protein phosphatase 2A. CaMK IV is a monomer that is located within the cytoplasm and nucleus and substantial localization occurs in certain neuronal nuclei. In spermatids CaMK IV is associated with chromatin and the nuclear matrix. CaMK IV is also specifically expressed in epithelial ovarian cancer tissue.

### Product images:



WB using Anti-CaM Kinase IV antibody shows detection of a band ~52 kDa corresponding to CaM Kinase IV (arrowhead) in various preparations: lane 1 - rat brain lysate, lane 2 - Jurkat cell lysate. Specific reactivity is blocked in both lysates when antibody is preincubated with immunizing peptide (lanes 3 and 4 respectively). The primary antibody diluted to 1:1,000. IRDye800 conjugated Gt-a-Rabbit IgG [H&L] MX was used at 1:10000.



Anti-CAMK4 antibody was diluted 1:500 to detect CAMK4 in human brain cortex tissue. Tissue was formalin fixed and paraffin embedded. No pre-treatment of sample was required. The image shows the localization of antibody as the precipitated red signal, with a hematoxylin purple nuclear counter stain.