

**CAMK2A Antibody (monoclonal) (M01)****Mouse monoclonal antibody raised against a partial recombinant CAMK2A.****Catalog # AT1375a****Specification**

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**CAMK2A Antibody (monoclonal) (M01) - Product Information**

Application	IF, WB, E
Primary Accession	<a href="#">O9UQM7</a>
Other Accession	<a href="#">BC040457</a>
Reactivity	Human, Rat
Host	mouse
Clonality	Monoclonal
Isotype	IgG2a Kappa
Calculated MW	54088

**CAMK2A Antibody (monoclonal) (M01) - Additional Information****Gene ID** 815**Other Names**

Calcium/calmodulin-dependent protein kinase type II subunit alpha, CaM kinase II subunit alpha, CaMK-II subunit alpha, CAMK2A, CAMKA, KIAA0968

**Target/Specificity**

CAMK2A (AAH40457, 305 a.a. ~ 410 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Dilution**

WB~~1:500~1000

**Format**

Clear, colorless solution in phosphate buffered saline, pH 7.2 .

**Storage**

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**Precautions**

CAMK2A Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

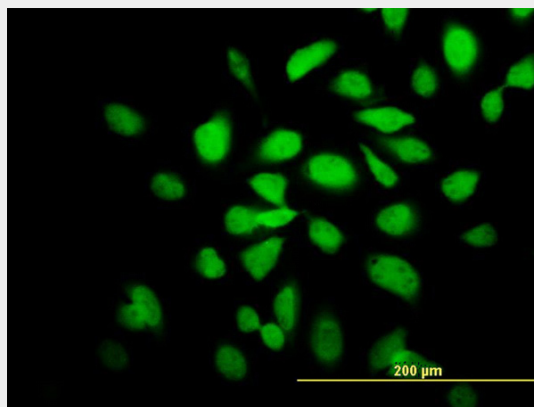
**CAMK2A Antibody (monoclonal) (M01) - Protocols**

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

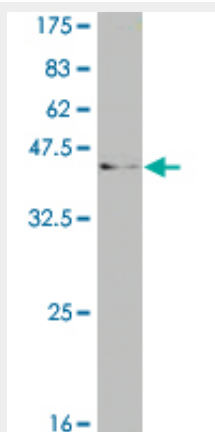
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

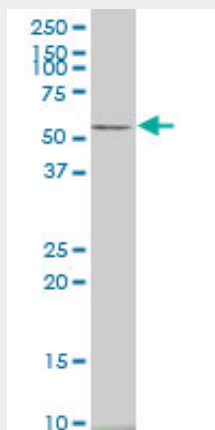
### CAMK2A Antibody (monoclonal) (M01) - Images



Immunofluorescence of monoclonal antibody to CAMK2A on HeLa cell. [antibody concentration 10 ug/ml]

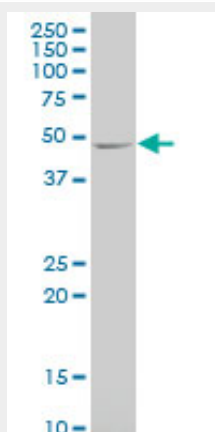


Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (37.29 KDa) .

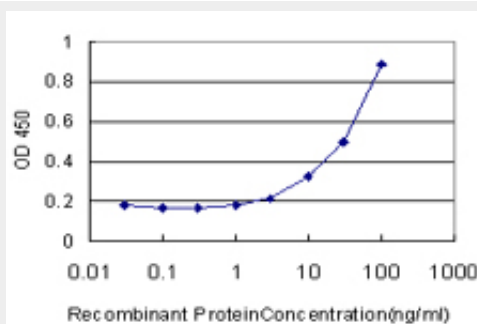


CAMK2A monoclonal antibody (M01), clone 2C4. Western Blot analysis of CAMK2A expression in

human stomach.



CAMK2A monoclonal antibody (M01), clone 2C4. Western Blot analysis of CAMK2A expression in RIN-m5F.



Detection limit for recombinant GST tagged CAMK2A is approximately 3ng/ml as a capture antibody.

### **CAMK2A Antibody (monoclonal) (M01) - Background**

The product of this gene belongs to the serine/threonine protein kinases family, and to the Ca(2+)/calmodulin-dependent protein kinases subfamily. Calcium signaling is crucial for several aspects of plasticity at glutamatergic synapses. This calcium calmodulin-dependent protein kinase is composed of four different chains: alpha, beta, gamma, and delta. The alpha chain encoded by this gene is required for hippocampal long-term potentiation (LTP) and spatial learning. In addition to its calcium-calmodulin (CaM)-dependent activity, this protein can undergo autophosphorylation, resulting in CaM-independent activity. Two transcript variants encoding distinct isoforms have been identified for this gene.

### **CAMK2A Antibody (monoclonal) (M01) - References**

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614. Ca<sup>2+</sup>/calmodulin-dependent protein kinase II alpha is required for the initiation and maintenance of opioid-induced hyperalgesia. Chen Y, et al. J Neurosci, 2010 Jan 6. PMID 20053885. Regulation of the proteasome by neuronal activity and calcium/calmodulin-dependent protein kinase II. Djakovic SN, et al. J Biol Chem, 2009 Sep 25. PMID 19638347. Phosphorylation status of the NR2B subunit of NMDA receptor regulates its interaction with calcium/calmodulin-dependent protein kinase II. Raveendran R, et al. J Neurochem, 2009 Jul. PMID 19453375. Case-control association study of 65 candidate genes revealed a possible association of a SNP of HTR5A to be a factor susceptible to bipolar disease in Bulgarian population. Yosifova A, et al. J Affect Disord, 2009 Sep. PMID 19328558.