10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CAMK2A Antibody (monoclonal) (M03)

Mouse monoclonal antibody raised against a partial recombinant CAMK2A.
Catalog # AT1376a

Specification

CAMK2A Antibody (monoclonal) (M03) - Product Information

Application	**WB, IF, E**
Primary Accession	Q9UQM7
Other Accession	BC040457
Reactivity	**Human**
Host	**mouse**
Clonality	**Monoclonal**
Isotype	**IgG2b Kappa**
Calculated MW	**54088**

CAMK2A Antibody (monoclonal) (M03) - 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
IF~~1:50~200
E~~N/A

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) (M03) is for research use only and not for use in diagnostic or therapeutic procedures.

CAMK2A Antibody (monoclonal) (M03) - Protocols

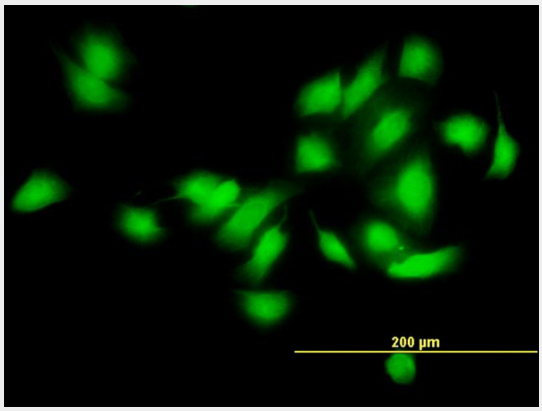
Provided below are standard protocols that you may find useful for product applications.

- Western Blot

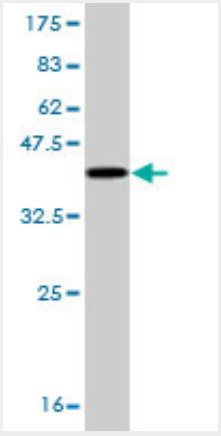
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

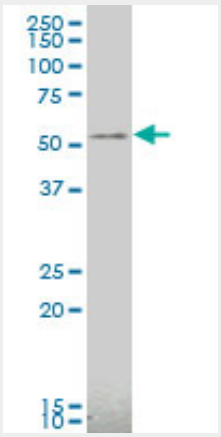
CAMK2A Antibody (monoclonal) (M03) - Images



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

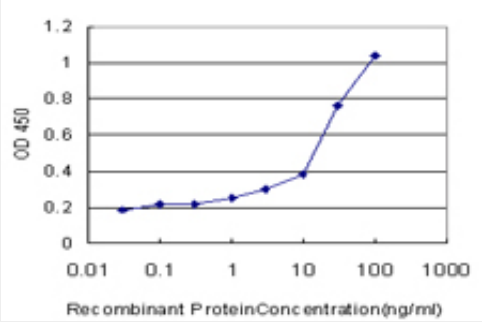


Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (37.29 KDa) .



10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CAMK2A monoclonal antibody (M03), clone 2C12 Western Blot analysis of CAMK2A expression in LNCaP ((Cat # AT1376a)



Detection limit for recombinant GST tagged CAMK2A is approximately 0.3ng/ml as a capture antibody.

CAMK2A Antibody (monoclonal) (M03) - 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) (M03) - 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.Ca2+/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.