ARG24136
anti-CaMKII phospho (Thr286) antibody [22B1] (APC)

Package: 50 µg
Store at: -20°C

Summary

Product Description	APC-conjugated Mouse Monoclonal antibody [22B1] recognizes CaMKII phospho (Thr286)
Tested Reactivity	Hu, Ms, Rat
Tested Application	ELISA, ICC/IF, IHC-P, IP, WB
Specificity	Detects phosphorylated CaMKII from rat tissues. Monoclonal antibody 22B1 (anti-phosphoCaMKII is specific for α and β subunits of CaMKII only when they are phosphorylated at Thr-286/287 (in β).
Host	Mouse
Clonality	Monoclonal
Clone	22B1
Isotype	IgG
Target Name	CaMKII
Species	Rat
Immunogen	Phosphospecific peptide around Thr286 of Rat CaMKII (NP_037052.1).
Conjugation	APC
Alternate Names	CAMKA; CaMK-II subunit alpha; Calcium/calmodulin-dependent protein kinase type II subunit alpha; CaM kinase II subunit alpha; EC 2.7.11.17

Application Instructions

Application table

Application	Dilution
ELISA	Assay-dependent
ICC/IF	1:1000
IHC-P	Assay-dependent
IP	Assay-dependent
WB	1:1000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	Rat brain tissue extract.
Observed Size	~50 kDa

Properties

Form	Liquid
Purification	Protein G affinity purified

Buffer	PBS (pH 7.4), 0.09% Sodium azide and 50% Glycerol
Preservative	0.09% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	Camk2a
Gene Full Name	calcium/calmodulin-dependent protein kinase II alpha
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. [provided by RefSeq, Nov 2008]
Function	CaM-kinase II (CAMK2) is a prominent kinase in the central nervous system that may function in long-term potentiation and neurotransmitter release. Member of the NMDAR signaling complex in excitatory synapses it may regulate NMDAR-dependent potentiation of the AMPAR and synaptic plasticity. [UniProt]
Highlight	