Recombinant Human CAMK2A

Cat. No. CAMK2A-26210TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length protein (Human), was expressed by baculovirus in Sf9 insect cells, using an N-terminal tag, MW 74kDa.
Species	Human
Description	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.
Form	Liquid
Storage buffer	Preservative: NoneConstituents: 25% Glycerol, 50mM Tris HCl, 150mM Sodium chloride, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, pH 7.5
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequence Similarities	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily.Contains 1 protein kinase domain.

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Full Length	Full L.

GENE INFORMATION

Gene Name	CAMK2A calcium/calmodulin-dependent protein kinase II alpha [Homo sapiens]
Official Symbol	CAMK2A
Synonyms	CAMK2A; calcium/calmodulin-dependent protein kinase II alpha; calcium/calmodulin dependent protein kinase (CaM kinase) II alpha , CAMKA; calcium/calmodulin-dependent protein kinase type II subunit alpha; calcium/calmodulin dependent protein kinase II alph
Gene ID	815
mRNA Refseq	NM_015981
Protein Refseq	NP_057065
MIM	114078
Uniprot ID	Q9UQM7
Chromosome Location	5
Pathway	Activation of NMDA receptor upon glutamate binding and postsynaptic events, organism-specific biosystem; CREB phosphorylation through the activation of CaMKII, organism-specific biosystem; CREB phosphorylation through the activation of Ras, organism-specific biosystem; Calcium Regulation in the Cardiac Cell, organism-specific biosystem; Calcium signaling pathway, organism-specific

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	biosystem;
Function	ATP binding; calmodulin binding; calmodulin-dependent protein kinase activity; kinase activity; nucleotide binding;

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