

Recombinant Human CAMK2A, His-tagged

Cat. No. CAMK2A-1186H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human full length CAMK2A with His tag is expressed in insect cells.
Species	Human
Source	Insect Cells
Description	CAMK2A is an enzyme that in humans is encoded by the CAMK2A gene. 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 enzyme 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.
Form	Liquid in 20 mM Tris, pH 7.5 + 100 mM NaCl + 0.5 mM EDTA + 0.05% NP-40 + 2 mM DTT + 50% glycerol.
Molecular Weight	56.8 kDa
Concentration	0.34 mg/ml
Purity	≥90%
Specific Activity	7300 nmole of phosphate transferred to autocalcinein-2 per minute per mg of total protein at 30°C. Activity determined at a final protein concentration of 0.05 µg/ml.

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Storage	Stable for 6 months in working aliquots at -80°C. Avoid repeated freeze-thaw cycles.
Official Symbol	CAMK2A
Full Length	Full L.
GENE INFORMATION	
Gene Name	CAMK2A calcium/calmodulin-dependent protein kinase II alpha [Homo sapiens]
Synonyms	CAMK2A; calcium/calmodulin-dependent protein kinase II alpha; CAMKA; KIAA0968; CaMKIIN alpha; CaMK-II alpha subunit; CaM-kinase II alpha chain; CaM kinase II alpha subunit; calcium/calmodulin-dependent protein kinase II alpha-B subunit; calcium/calmodulin-dependent protein kinase type II alpha chain; calcium/calmodulin-dependent protein kinase (CaM kinase) II alpha; EC2.7.11.17; OTTHUMP00000165787; OTTHUMP00000165788; CaM kinase II subunit alpha; CaMK-II subunit alpha
Gene ID	815
mRNA Refseq	NM_015981
Protein Refseq	NP_057065
MIM	114078
UniProt ID	Q9UQM7
Chromosome Location	5q32

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Pathway	Calcium signaling pathway; ErbBsignaling pathway; Glioma; GnRH signaling pathway; Long-term potentiation;Melanogenesis; Neurotrophin signaling pathway; Olfactory transduction; Wntsignaling pathway
Function	ATP binding; calmodulinbinding; calmodulin-dependent protein kinase activity; nucleotide binding;transferase activity
PDB rendering basedon 1hxx.	

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