

## Recombinant Human CAMK2A, His-tagged

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

### SPECIFICATION

<b>Product Overview</b>	Recombinant human full length CAMK2A with His tag is expressed in insect cells.
<b>Species</b>	Human
<b>Source</b>	Insect Cells
<b>Description</b>	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 <sup>2+</sup> /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.
<b>Form</b>	Liquid in 20 mM Tris, pH 7.5 + 100 mM NaCl + 0.5 mM EDTA + 0.05% NP-40 + 2 mM DTT + 50% glycerol.
<b>Molecular Weight</b>	56.8 kDa
<b>Concentration</b>	0.34 mg/ml
<b>Purity</b>	≥90%
<b>Specific Activity</b>	7300 nmole of phosphate transferred to autocalmitide-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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<b>Storage</b>	Stable for 6 months in working aliquots at -80°C. Avoid repeated freeze-thaw cycles.
<b>Official Symbol</b>	CAMK2A
<b>Full Length</b>	Full L.
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	<a href="#">CAMK2A</a> calcium/calmodulin-dependent protein kinase II alpha [ Homo sapiens ]
<b>Synonyms</b>	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
<b>Gene ID</b>	<a href="#">815</a>
<b>mRNA Refseq</b>	<a href="#">NM_015981</a>
<b>Protein Refseq</b>	<a href="#">NP_057065</a>
<b>MIM</b>	<a href="#">114078</a>
<b>UniProt ID</b>	<a href="#">Q9UQM7</a>
<b>Chromosome Location</b>	5q32

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**Pathway** Calcium signaling pathway; ErbB signaling pathway; Glioma; GnRH signaling pathway; Long-term potentiation; Melanogenesis; Neurotrophin signaling pathway; Olfactory transduction; Wnt signaling pathway

**Function** ATP binding; calmodulin binding; calmodulin-dependent protein kinase activity; nucleotide binding; transferase activity

**PDB rendering  
based on 1hxx.**

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