

Recombinant Human CAMK2A Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. CAMK2A-6286H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	CAMK2A MS Standard C13 and N15-labeled recombinant protein (NP_741960) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
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. Several transcript variants encoding distinct isoforms have been identified for this gene.
Molecular Mass	54.1 kDa
AA Sequence	MATITCTRFTEEYQLFEELGKGAFSVVRRVCVKVLAGQEYAAKIINTKKLSARDHQLKLE REARICRLLKHPNIVRLHDSISEEGHHYLIFDLVTGGELFEDIVAREYYSEADASHCIQ QILEAVLHCHQMGMVHRDLKPENLLLASKLKGA AVKLADFGLAIEVEGEQQAWFGFA GTPGYLSPEVLRKDPYGKPVLDWACGVILYILLVGYPFWDEDQHRLYKQIKAGAYD

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FPSPEWDTVTPEAKDLINKMLTINPSKRITAAEALKHPWISHRSTVASCMSHRQETVD
 CLKKFNARRKLKGAILTTMLATRNFSGGKSGGNKKSDGVKESSESTNTTIEDEDTKV
 RKQEIIKVTEQLIEAISNGDFESYTKMCDPGMTAFEPEALGNLVEGLDFHRFYFENLW
 SRNSKPVHTTILNPHIHLMGDESACIAYIRITQYLDAGGIPRTAQSEETRVWHRRDGK
 WQIVHFHRSGAPSVLPHTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name CAMK2A calcium/calmodulin-dependent protein kinase II alpha [Homo sapiens (human)]

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 alpha B subunit; calcium/calmodulin dependent protein kinase type II alpha chain; CaM kinase II alpha subunit; CaM kinase II alpha chain; CaMK II alpha subunit; CaMKIINalpha; KIAA0968; CaMK-II alpha subunit; caMK-II subunit alpha; CaM-kinase II alpha chain; caM kinase II subunit alpha; calcium/calmodulin-

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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; CAMKA;

Gene ID 815

mRNA Refseq NM_171825

Protein Refseq NP_741960

MIM 114078

UniProt ID Q9UQM7

SDS-PAGE

