

Recombinant Human CAMK2A 293 Cell Lysate

Cat. No. CAMK2A-7880HCL **Lot. No.** (See product label)

SPECIFICATION

Species	Human
Source	HEK293
Description	Antigen standard for calcium/calmodulin-dependent protein kinase II alpha (CAMK2A), transcript variant 1 is a lysate prepared from HEK293T cells transiently transfected with a TrueORF gene-carrying pCMV plasmid and then lysed in RIPA Buffer. Protein concentration was determined using a colorimetric assay. The antigen control carries a C-terminal Myc/DDK tag for detection.
Components	This product includes 3 vials: 1 vial of gene-specific cell lysate, 1 vial of control vector cell lysate, and 1 vial of loading buffer. Each lysate vial contains 0.1 mg lysate in 0.1 ml (1 mg/ml) of RIPA Buffer (50 mM Tris-HCl pH7.5, 250 mM NaCl, 5 mM EDTA, 50 mM NaF, 1% NP40). The loading buffer vial contains 0.5 ml 2X SDS Loading Buffer (125 mM Tris-Cl, pH6.8, 10% glycerol, 4% SDS, 0.002% Bromophenol blue, 5% beta-mercaptoethanol).
Size	0.1 mg
Storage Instruction	Store at -80°C. Minimize freeze-thaw cycles. After addition of 2X SDS Loading Buffer, the lysates can be stored at -20°C. Product is guaranteed 6 months from the date of shipment.
Applications	ELISA, WB, IP. WB: Mix equal volume of lysates with 2X SDS Loading Buffer. Boil the mixture for 10 min before loading (for membrane protein lysates, incubate the

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mixture at room temperature for 30 min). Load 5 ug lysate per lane.

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 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-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_015981](#)

Protein Refseq [NP_057065](#)

MIM [114078](#)

UniProt ID [Q9UQM7](#)

Chromosome Location 5

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Pathway

Activation of NMDA receptor upon glutamate binding and postsynaptic events, organism-specific biosystem; Amphetamine addiction, organism-specific biosystem; Amphetamine addiction, conserved 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 biosystem;

Function

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

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