



# Recombinant Rat Calcium/calmodulin-dependent protein kinase type II subunit alpha (Camk2a)

<b>Product Code</b>	CSB-MP004465RA
<b>Storage</b>	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
<b>Uniprot No.</b>	P11275
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Rattus norvegicus (Rat)
<b>Purity</b>	>85% (SDS-PAGE)
<b>Sequence</b>	MATITCTRFT EEQQLFEELG KGAFSVVRRRC VKVLAGQEYA AKIINTKKLS ARDHQKLERE ARICRLLKHP NIVRLHDSIS EEGHHYLIFD LVTGGELFED IVAREYYSEA DASHCIQQIL EAVLHCHQMG VVHRDLKPEN LLLASKLKGA AVKLADFGLA IEVEGEQQAW FGFAGTPGYL SPEVLRKDPY GKPVDLWACG VILYILLVGY PPFWDEDQHR LYQQIKAGAY DFPSPEWDTV TPEAKDLINK MLTINPSKRI TAAEALKHPW ISHRSTVASC MHRQETVDCL KKFNARRKLN GAILTTMLAT RNFSGGKSGG NKKNDGVKES SESTNTTIED EDTKVRKQEI IKVTEQLIEA ISNGDFESYT KMCDPGMTAF EPEALGNLVE GLDFHRFYFE NLWSRNSKPV HTTILNPHIH LMGDESACIA YIRITQYLDA GGIPRTAQSE ETRVWHRRDG KWQIVHFHRS GAPSVLPH
<b>Source</b>	Mammalian cell
<b>Target Names</b>	Camk2a
<b>Protein Names</b>	Recommended name: Calcium/calmodulin-dependent protein kinase type II subunit alpha Short name= CaM kinase II subunit alpha Short name= CaMK-II subunit alpha EC= 2.7.11.17
<b>Expression Region</b>	1-478
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Full length protein
<b>Target Details</b>	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.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a



concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

### Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.