

Product datasheet for **TP508679**

Camk2b (NM_001174053) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse calcium/calmodulin-dependent protein kinase II, beta (Camk2b), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR208679 protein sequence Red =Cloning site Green =Tags(s)

MATTVTCTRFTDEYQLYEDIGKGAFSVRRRCVKLCTGHEYAAKIINTKKLSARDHQKLEREARICRLKHSNIVRLHDSISEEGFHYLVFDLVTGGELFEDIVAREYYSEADASHCIQQILEAVLHCHQMGGVHRDLKPE NLLASKCKGAAVKLADFLAIEVQGDQAWFGFAGTPGYLSPEVLRKEAYGKPVDIWACGVILYILLVGYPPFWEDEDQHKLYQQIKAGAYDFPSPEWDTVTPEAKNLINQMLTINPAKRITAHEALKHPWVCQRSTVAS MMHRQETVECLKKFNARRKLGAILTTMLATRNFSKSLNKKADGVKPTNSTKNSSAITSPPKGSPLPPA ALESSDSTNTTIEDAKAPRISDILNSVRRGSGTPEAEGLPPVGPCCPSPTLPGPLPTPSRKQEIIT TEQLIEAVNNGDFEAYAKICDPGLTSFEPEALGNLVEGMDFHRFYFENLLAKNSKPIHTTILNPHVHVIG EDAACIAYIRLTQYIDGQGRPRTSQSEETRWHRRDGKWQNVHFHFCSGAPVAPLQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-MYC/DDK
Predicted MW:	60.7 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_001167524



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Locus ID:	12323
UniProt ID:	Q68EG2 , Q8BL41
RefSeq Size:	4034
Cytogenetics:	11 3.89 cM
RefSeq ORF:	1638
Synonyms:	CaMKII
Summary:	<p>Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca(2+)/calmodulin-binding and autophosphorylation, and is involved in dendritic spine and synapse formation, neuronal plasticity and regulation of sarcoplasmic reticulum Ca(2+) transport in skeletal muscle. In neurons, plays an essential structural role in the reorganization of the actin cytoskeleton during plasticity by binding and bundling actin filaments in a kinase-independent manner. This structural function is required for correct targeting of CaMK2A, which acts downstream of NMDAR to promote dendritic spine and synapse formation and maintain synaptic plasticity which enables long-term potentiation (LTP) and hippocampus-dependent learning. In developing hippocampal neurons, promotes arborization of the dendritic tree and in mature neurons, promotes dendritic remodeling. Also regulates the migration of developing neurons (PubMed:29100089). Participates in the modulation of skeletal muscle function in response to exercise. In slow-twitch muscles, is involved in regulation of sarcoplasmic reticulum (SR) Ca(2+) transport and in fast-twitch muscle participates in the control of Ca(2+) release from the SR through phosphorylation of triadin, a ryanodine receptor-coupling factor, and phospholamban (PLN/PLB), an endogenous inhibitor of SERCA2A/ATP2A2 (PubMed:21752990).[UniProtKB/Swiss-Prot Function]</p>