

Recombinant Human CAMK2A/CAMKA Protein (GST Tag)



Catalog Number: PKSH030403

Note: Centrifuge before opening to ensure complete recovery of vial contents.

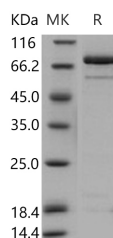
Description

Synonyms	CAMKA
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-His 478
Accession	NP_741960.1
Calculated Molecular Weight	80.3 kDa
Observed molecular weight	80 kDa
Tag	N-GST
Bioactivity	The specific activity was determined to be 160 nmol/min/mg using Autocamtide-2 synthetic peptide (KKALRRQETVDAL-amide) as substrate.

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.
Formulation	Supplied as sterile solution of 50mM Tris, 100mM NaCl, 0.5mM PMSF, 0.5mM Reduced Glutathione, pH 8.0
Reconstitution	Not Applicable

Data



> 85 % as determined by reducing SDS-PAGE.

Background

Ca²⁺/calmodulin-dependent protein kinase2A (CAMK2A) belongs to the serine/threonine protein kinase family and, together with other 28 different isoforms, belongs to the Ca²⁺/calmodulin-dependent protein kinase subfamily. CaM kinase II is thought to be an important mediator of learning and memory and is also necessary for Ca²⁺ homeostasis and reuptake in cardiomyocytes chloride transport in epithelia, positive T-cell selection, and CD8 T-cell activation. CAMKIIA is one of the major forms of CAMKII. It has been found to play a critical role in sustaining activation of CAMKII at the postsynaptic density. Studies have found that knockout mice without CAMKIIA demonstrate a low frequency of LTP. Additionally, these mice do not form persistent, stable place cells in the hippocampus.

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