Recombinant Protein Technical Manual

Recombinant Human CAMK2A/CAMKA Protein (GST Tag)(Active)

RPES1813

Product Data:

Product SKU: RPES1813

Size: 20µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: NP_741960.1

Protein Information:

Molecular Mass:	80.3 kDa
AP Molecular Mass:	80 kDa
Tag:	N-GST
Bio-activity:	The specific activity was determined to be 160 nmol/min/mg using Autocamtide-2 synthetic peptide (KKALRRQETVDAL-amide) as substrate.
Purity:	> 85 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg 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 50mM Tris, 100mM NaCl, 0.5mM PMSF, 0.5mM Reduced Glutathione, pH 8.0
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	CAMKA

Immunogen Information:

Sequence: Met 1-His 478

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.