Recombinant Human CAMK4/CaMKIV Protein (GST Tag)

Catalog Number: PKSH031495

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

Description	
Species	Human
Source	Baculovirus-Insect Cells-derived Human CAMK4/CaMKIV protein Met 1-Tyr 473,
	with an N-terminal GST
Calculated MW	79.0 kDa
Observed MW	100 kDa
Accession	NP_001735.1
Bio-activity	Not validated for activity
Properties	
Purity	> 82 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 50mM Tris, 100mM NaCl, 0.5mM PMSF, pH 8.0
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants
	before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.
Data	
	KDa MK R
	116 —
	66.2 -
	45.0
	35.0
	25.0
	18.4

> 82 % as determined by reducing SDS-PAGE.

14.4

Background

Ca2+/ calmodulin-dependent protein kinase 4 (CAMKIV) belongs to the serine/threonine protein kinase family, and to the Ca2+/calmodulin-dependent protein kinase subfamily which is widely recognized as an essential enzyme implicated in the phophoinositide amplification cascade. Ca2+/calmodulin dependent protein kinase (CAMK) can be activated by the introcellular increased Ca2+ and then apt to combine with the target protein. Ca2+/ calmodulin-dependent protein kinase 4 (CAMKIV) is a multifunctional CaM-dependent kinase protein with limited tissue distribution, that has been implicated in transcriptional regulation in lymphocytes, neurons and male germ cells. All of the isforms of this family, including myosin light chain kinase, phosphorylase kinase, CaMK1, CaMKIII and CaMKIV have EF-hand structure.

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