

Recombinant Human CAMK4/CaMKIV Protein (GST Tag)

Catalog No. PKSH031495

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

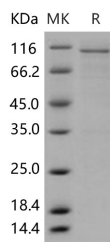
Description

Synonyms	caMK;CaMK-GR;CaMKIV;IV
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-Tyr 473
Accession	NP_001735.1
Calculated Molecular Weight	79.0 kDa
Observed molecular weight	100 kDa
Tag	N-GST
Bioactivity	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°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% Tween80 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



> 82 % as determined by reducing SDS-PAGE.

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

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the phosphoinositide amplification cascade. Ca^{2+} /calmodulin dependent protein kinase (CAMK) can be activated by the intracellular increased Ca^{2+} and then apt to combine with the target protein. Ca^{2+} /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 isoforms of this family, including myosin light chain kinase, phosphorylase kinase, CaMK1, CaMKIII and CaMKIV have EF-hand structure.