

Mouse CAMK4 / CaMKIV Protein (His & GST Tag)

Catalog Number: 50838-M20B



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

A430110E23Rik; AI666733; CaMKIV; CaMKIV/Gr; D18Bwg0362e

Protein Construction:

A DNA sequence encoding the mouse CAMK4 (P08414) (Met1-Tyr469) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Mouse

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 94 % as determined by SDS-PAGE

Bio Activity:

No Kinase Activity

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The secreted recombinant mouse CAMK4/GST chimera consists of 706 amino acids and has a calculated molecular mass of 80.4 kDa. The recombinant protein migrates as an approximately 85 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% gly

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

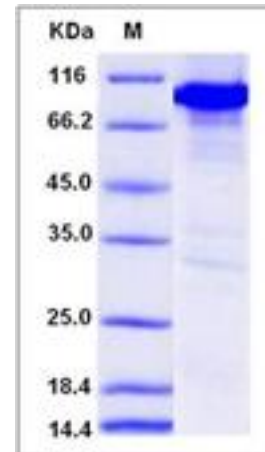
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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 phosphoinositide amplification cascade. Ca²⁺/calmodulin dependent protein kinase (CAMK) can be activated by the intracellular 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 isoforms of this family, including myosin light chain kinase, phosphorylase kinase, CaMK1, CaMKII and CaMKIV have EF-hand structure.

References

1. Feliciano DM, *et al.* (2009) Repression of Ca²⁺/calmodulin-dependent protein kinase IV signaling accelerates retinoic acid-induced differentiation of human neuroblastoma cells. *J Biol Chem.* 284 (39): 26466-81.
2. Zhao X, *et al.* (2001). The modular nature of histone deacetylase HDAC4 confers phosphorylation-dependent intracellular trafficking. *J Biol Chem.* 276 (37): 35042-8.
3. Racioppi L, *et al.* (2008) Calcium/calmodulin-dependent kinase IV in immune and inflammatory responses: novel routes for an ancient traveller.

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