

Recombinant Human CAMK4 Protein (L2-Y473), Tag Free

Cat. No. CAMK4-0181H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human GG-CaMK4(L2-Y473 end) Protein was expressed in Insect cell.

Species Human

Source Insect Cells

ProteinLength L2-Y473

Description

Calcium/calmodulin-dependent protein kinase that operates in the calcium-triggered CaMKK-CaMK4 signaling cascade and regulates, mainly by phosphorylation, the activity of several transcription activators, such as CREB1, MEF2D, JUN and RORA, which play pivotal roles in immune response, inflammation, and memory consolidation. In the thymus, regulates the CD4(+)/CD8(+) double positive thymocytes selection threshold during T-cell ontogeny. In CD4 memory T-cells, is required to link T-cell antigen receptor (TCR) signaling to the production of IL2, IFNG and IL4 (through the regulation of CREB and MEF2). Regulates the differentiation and survival phases of osteoclasts and dendritic cells (DCs). Mediates DCs survival by linking TLR4 and the regulation of temporal expression of BCL2. Phosphorylates the transcription activator CREB1 on 'Ser-133' in hippocampal neuron nuclei and contribute to memory consolidation and long term potentiation (LTP) in the hippocampus. Can activate the MAP kinases MAPK1/ERK2, MAPK8/JNK1 and MAPK14/p38 and stimulate transcription through the phosphorylation of ELK1 and ATF2. Can also phosphorylate in vitro CREBBP, PRM2, MEF2A and STMN1/OP18.

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Form	Liquid
Endotoxin	< 0.01 EU per µg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	CAMK4 calcium/calmodulin-dependent protein kinase IV [Homo sapiens (human)]
Official Symbol	CAMK4
Synonyms	CAMK4; calcium/calmodulin-dependent protein kinase IV; calcium/calmodulin-dependent protein kinase type IV; brain Ca ⁺⁺ calmodulin dependent protein kinase type IV; calcium/calmodulin dependent protein kinase type IV catalytic chain; CAM kinase IV; CAM kinase GR; CaMK GR; caM kinase-GR; CAM kinase- GR; brain Ca ⁺⁺ -calmodulin-dependent protein kinase type IV; brain Ca(2+)-calmodulin-dependent protein kinase type IV; calcium/calmodulin-dependent protein kinase type IV catalytic chain; IV; caMK; CaMK IV; CaMK-GR; MGC36771;
Gene ID	814

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mRNA Refseq	NM_001744
Protein Refseq	NP_001735
MIM	114080
UniProt ID	Q16566

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