

## Recombinant Human CAMK4 Protein (L2-Y473), GST tagged

Cat. No. CAMK4-0182H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human GST-TEV-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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<b>Form</b>	Liquid
<b>Endotoxin</b>	< 0.01 EU per µg of the protein
<b>Purity</b>	80%
<b>Stability</b>	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
<b>Storage</b>	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.
<b>Storage Buffer</b>	Supplied as sterile 50 mM Tris-HCl (pH 7.5), 150 mM NaCl, 5% glycerol, 5mM DTT, 0.1M Trehalose
<b>Shipping</b>	It is shipped out with blue ice.

## GENE INFORMATION

<b>Gene Name</b>	CAMK4 calcium/calmodulin-dependent protein kinase IV [ Homo sapiens (human) ]
<b>Official Symbol</b>	CAMK4
<b>Synonyms</b>	CAMK4; calcium/calmodulin-dependent protein kinase IV; calcium/calmodulin-dependent protein kinase type IV; brain Ca <sup>++</sup> 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 <sup>++</sup> -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;

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Gene ID	814
mRNA Refseq	NM_001744
Protein Refseq	NP_001735
MIM	114080
UniProt ID	Q16566

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