

Recombinant Human CAMK2B Protein (A2-Q666), GST tagged

Cat. No. CAMK2B-0174H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GST-TEV-GG-CAMK2 β (A2-Q666 end) Protein was expressed in Insect cell.
Species	Human
Source	Insect Cells
ProteinLength	A2-Q666
Description	Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca(2+)/calmodulin-binding and autophosphorylation, and is involved in dendritic spine and synapse formation, neuronal plasticity and regulation of sarcoplasmic reticulum Ca(2+) transport in skeletal muscle. In neurons, plays an essential structural role in the reorganization of the actin cytoskeleton during plasticity by binding and bundling actin filaments in a kinase-independent manner. This structural function is required for correct targeting of CaMK2A, which acts downstream of NMDAR to promote dendritic spine and synapse formation and maintain synaptic plasticity which enables long-term potentiation (LTP) and hippocampus-dependent learning. In developing hippocampal neurons, promotes arborization of the dendritic tree and in mature neurons, promotes dendritic remodeling. Also regulates the migration of developing neurons. Participates in the modulation of skeletal muscle function in response to exercise. In slow-twitch muscles, is involved in regulation of sarcoplasmic reticulum (SR) Ca(2+) transport and in fast-twitch muscle participates in the control of Ca(2+) release from the SR through phosphorylation of triadin, a ryanodine receptor-coupling factor, and

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	phospholamban (PLN/PLB), an endogenous inhibitor of SERCA2A/ATP2A2.
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	CAMK2B calcium/calmodulin-dependent protein kinase II beta [Homo sapiens (human)]
Official Symbol	CAMK2B
Synonyms	CAMK2B; calcium/calmodulin-dependent protein kinase II beta; calcium/calmodulin dependent protein kinase (CaM kinase) II beta, CAMKB; calcium/calmodulin-dependent protein kinase type II subunit beta; calcium/calmodulin dependent protein kinase type II beta chain; CaM kinase II beta subunit; CaM kinase II beta chain; CAM2; CAMK2; proline rich calmodulin dependent protein kinase; caMK-II subunit beta; CaM-kinase II beta chain; proline rich calmodulin-dependent protein kinase;

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CAMKB; MGC29528;

Gene ID 816**mRNA Refseq** NM_001220**Protein Refseq** NP_001211**MIM** 607707**UniProt ID** Q13554 Tel: 1-631-559-9269 1-516-512-3133 Email: info@creative-biomart.com  Fax: 1-631-938-8127 45-1 Ramsey Road, Shirley, NY 11967, USA