# Recombinant Human CAMK2beta, GST-tagged

**Cat. No.** CAMK2B-45H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant full-length human CAMK2beta was expressed by baculovirus in Sf9 cells using an N-terminal GST tag. |
| **Species** | Human |
| **Source** | Sf9 Cells |
| **Description** | CAMK2beta belongs to the serine/threonine protein kinase family and to the type II multifunctional Ca(2+)/calmodulin-dependent protein kinase subfamily. CAMK2beta showed wide tissue and cell distribution, and one of CAMK2beta variant predominated in adult brain. The ratio of CAMK2alpha and CAMK2beta protein levels were inversely related during activity in hippocampal neurons. CAMK2beta is a prominent kinase in the central nervous system and may function in long-term potentiation and neurotransmitter release. |
| **Form** | 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol. |
| **Molecular Mass** | ~81 kDa |
| **Applications** | Kinase Assay, Western Blot |
| **Storage** | Store product at –70oC. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. |

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## GENE INFORMATION

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| **Gene Name** | CAMK2B calcium/calmodulin-dependent protein kinase II beta [ Homo sapiens ] |
| **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; CAMKB; MGC29528; |
| **Gene ID** | 816 |
| **mRNA Refseq** | NM_001220 |
| **Protein Refseq** | NP_001211 |
| **MIM** | 607707 |
| **UniProt ID** | Q13554 |
| **Chromosome Location** | 7p14.3-p14.1 |
| **Pathway** | Activation of NMDA receptor upon glutamate binding and postsynaptic events, organism-specific biosystem; Amphetamine addiction, organism-specific biosystem; Amphetamine addiction, conserved biosystem; CREB phosphorylation through the activation of CaMKII, organism-specific biosystem; CREB phosphorylation through |

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| | the activation of Ras, organism-specific biosystem; Calcium Regulation in the Cardiac Cell, organism-specific biosystem; Calcium signaling pathway, organism-specific biosystem; |
| **Function** | ATP binding; actin binding; calmodulin binding; calmodulin-dependent protein kinase activity; nucleotide binding; |

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