

Active Recombinant Rat Camkk1, GST-tagged

Cat. No. Camkk1-106R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length rat CAMKK1 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species	Rat
Source	Sf9 Cells
Description	CAMKK1 or CAMKKalpha is a Ca(2+)/calmodulin-dependent protein kinase that activates CAM-kinases I and IV via phosphorylation of their Thr(177) and Thr(196) residues, respectively. Recent studies have shown that the activity of CAMKK1 is decreased upon phosphorylation by cAMP-dependent protein kinase (PKA) The CAMKKalpha has been identified in intact cells as AMPKKs, predicting a significant role for this kinase in regulating AMPK activity in vivo. It has been shown that 2-deoxyglucose- and ionomycin-stimulated AMPK activity is substantially reduced in HeLa cells transfected with small interfering RNAs specific for CAMKKalpha.
Form	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Bio-activity	The specific activity of CAMKK1 was determined to be 9 nmol /min/mg
Molecular Mass	~88 kDa
Purity	>85% by densitometry

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Applications	Kinase Assay, Western Blot
Storage	Store product at –70 centigrade. 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.
Concentration	0.1 µg/µl
GENE INFORMATION	
Gene Name	Camkk1 calcium/calmodulin-dependent protein kinase kinase 1, alpha [<i>Rattus norvegicus</i>]
Official Symbol	Camkk1
Synonyms	CAMKK1; calcium/calmodulin-dependent protein kinase kinase 1, alpha; calcium/calmodulin-dependent protein kinase kinase 1; caMKK 1; caM-KK 1; alpha CaMKK; caMKK alpha; caM-KK alpha; caM-kinase kinase 1; caM-kinase IV kinase; caM-kinase kinase alpha; calcium/calmodulin-dependent protein kinase kinase alpha;
Gene ID	60341
mRNA Refseq	NM_031662
Protein Refseq	NP_113850
Pathway	Adipocytokine signaling pathway, organism-specific biosystem; Adipocytokine signaling pathway, conserved biosystem;
Function	ATP binding; calmodulin binding; calmodulin-dependent protein kinase activity; calmodulin-dependent protein kinase activity; nucleotide binding; protein

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serine/threonine kinase activity; protein serine/threonine kinase activity;