Active Recombinant Human CAMKK1, GST-tagged

Cat. No. CAMKK1-1374H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human CAMKK1 was expressed by baculovirus in Sf9 insect cells using a N-terminal GST tag.
Species	Human
Source	Sf9 Cells
ProteinLength	Full length
Description	CAMKK1 or CAMKKα is a Ca(2+)/calmodulin-dependent protein kinase that activatesCaM-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 CAMKKα.
Form	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, 25% glycerol.
Bio-activity	10 nmol/min/mg
Molecular Mass	~94 kDa

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Purity	>90%
Applications	Kinase Assay, Western Blot
Storage	Store at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles.
Concentration	0.1 μg/μl

GENE INFORMATION

Gene Name	CAMKK1 calcium/calmodulin-dependent protein kinase kinase 1, alpha [Homo sapiens]
Official Symbol	CAMKK1
Synonyms	CAMKK1; calcium/calmodulin-dependent protein kinase kinase 1, alpha; calcium/calmodulin-dependent protein kinase kinase 1; CAMKKA; DKFZp761M0423; MGC34095; caMKK 1; caM-KK 1; caM-KK alpha; CAMKK alpha protein; caM-kinase kinase 1; caM-kinase IV kinase; caM-kinase kinase alpha; calcium/calmodulin-dependent protein kinase kinase alpha;
Gene ID	84254
mRNA Refseq	NM_032294
Protein Refseq	NP_115670
MIM	611411
UniProt ID	Q8N5S9

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Chromosome Location	17p13.3
Pathway	Activation of NMDA receptor upon glutamate binding and postsynaptic events, organism-specific biosystem; Adipocytokine signaling pathway, organism-specific biosystem; Adipocytokine signaling pathway, conserved biosystem; CREB phosphorylation through the activation of CaMKK, organism-specific biosystem; Neuronal System, organism-specific biosystem; Neurotransmitter Receptor Binding And Downstream Transmission In ThePostsynaptic Cell, organism-specific biosystem; Post NMDA receptor activation events, organism-specific biosystem;
Function	ATP binding; calmodulin binding; calmodulin-dependent protein kinase activity; nucleotide binding;

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