

## Active Recombinant Human CAMKK1, GST-tagged

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

### SPECIFICATION

<b>Product Overview</b>	Recombinant full-length human CAMKK1 was expressed by baculovirus in Sf9 insect cells using a N-terminal GST tag.
<b>Species</b>	Human
<b>Source</b>	Sf9 Cells
<b>ProteinLength</b>	Full length
<b>Description</b>	<p>CAMKK1 or CAMKK<math>\alpha</math> 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 AMPKs, 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 CAMKK<math>\alpha</math>.</p>
<b>Form</b>	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.
<b>Bio-activity</b>	10 nmol/min/mg
<b>Molecular Mass</b>	~94 kDa

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

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">CAMKK1 calcium/calmodulin-dependent protein kinase kinase 1, alpha [ Homo sapiens ]</a>
<b>Official Symbol</b>	CAMKK1
<b>Synonyms</b>	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;
<b>Gene ID</b>	<a href="#">84254</a>
<b>mRNA Refseq</b>	<a href="#">NM_032294</a>
<b>Protein Refseq</b>	<a href="#">NP_115670</a>
<b>MIM</b>	<a href="#">611411</a>
<b>UniProt ID</b>	<a href="#">Q8N5S9</a>

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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 The Postsynaptic 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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