

Product Information

CaMKPase, GST-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SRP5170**
Storage Temperature -70°C

Synonyms: PPM1F, FEM-2, hFEM-2, KIAA0015, POPX2

Product Description

CaMKPase is a member of the PP2C family of Ser/Thr protein phosphatases that dephosphorylate and regulate the multifunctional Ca^{2+} /calmodulin-dependent protein kinases (CaMKs).¹ The multifunctional CaMKs mediate cellular responses induced by increases in second messenger Ca^{2+} and have been implicated in the control of synaptic transmission, gene transcription, cell growth, and contraction of cardiac and smooth muscles.² Overexpression of CaMKPase has been shown to mediate caspase-dependent apoptosis. CaMKPase can also interact with the Rho guanine nucleotide exchange factors (PIX), thereby, blocking the effects of p21-activated kinase 1 (PAK1).

Recombinant full-length human CaMKPase was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM_014634. Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~74 kDa

Purity: 70–95 % (SDS-PAGE, see Figure 1)

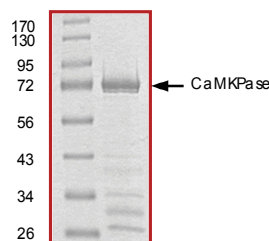
Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at -70°C is recommended. After opening, aliquot into smaller quantities and store at -70°C . Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.
SDS-PAGE Gel of Typical Lot
70–95% (densitometry)



References

1. Isamu, K. et al., Phosphorylation and activation of Ca^{2+} /calmodulin-dependent protein kinase phosphatase by Ca^{2+} /calmodulin-dependent protein kinase II. FEBS Letters, **456**, 249-252 (1999).
2. Ishida, A. et al., Stimulation of Ca^{2+} /calmodulin-dependent protein kinase phosphatase by polycations. Arch. Biochem. Biophys., **408**, 229-238 (2002).

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