

Autocamtide-2 Peptide

Subcategory: Substrate Peptide, Synthetic Peptide

Cat. No.: 350003

Unit: 1 mg

Description:

Autocamtide-2 is a highly selective peptide substrate for calcium/calmodulin-dependent protein kinase II (CaMKII), which belongs to the CAMK Ser/Thr protein kinase family. The sequence derives from the Thr-286 autophosphorylation site of the alpha subunit of CaMKII. Autocamtide-2 contains the R-X-X-S/T consensus site surrounded by basic residues for improved binding to phosphocellulose. CaMKII is a prominent kinase in the central nervous system that functions in long-term potentiation and neurotransmitter release. Autophosphorylation of Thr-286 allows the kinase to switch from a calmodulin-dependent to a calmodulin-independent state. CaMKII phosphorylates Autocamtide-2 with a K_m of 2 μ M whereas protein kinase C (PKC) has a K_m > 50 μ M and protein kinase A (PKA) has no activity.

Format: Each vial contains 1 mg of lyophilized solid packaged under an inert gas and supplied as a trifluoroacetate salt.

Alternate Names: Calcium/calmodulin-dependent protein kinase type II alpha chain; CaM-kinase II alpha chain; CaM kinase II subunit alpha; CaMK-II subunit alpha; CAMK2A; CAMKA; KIAA0968

Accession No.: Q9UQM7

MW: 1527.8 g/mol

Sequence: Lys-Lys-Ala-Leu-Arg-Arg-Gln-Glu-Thr-Val-Asp-Ala-Leu or KKALRRQETVDAL

Composition: C₆₅H₁₁₈N₂₂O₂₀

Purity: Purity > 95% by HPLC

Solubility: Distilled water for a solution up to 2 mg/ml, otherwise we recommend using acetonitrile.

Storage: Store at -20°C. The product is hygroscopic and must be protected from light. Product is guaranteed one year from the date of shipment. Following reconstitution, aliquot and store at -20°C.

For research use only, not for diagnostic or therapeutic procedures.