



CaM kinase II Positive Control
(Human, a.a.1-328, recombinant protein expressed in Sf9 cells)
Cat# CY-E1173

Lot No.
For 200 Assays
3 units (30 m units/ μ L)

Supplied with 100X Calmodulin (25 μ g/mL x 0.2 mL).

Product Description: Human Ca^{2+} /calmodulin-dependent protein kinase II (CaM kinase II), containing an N-terminal GST tag and a C-terminal His tag, is expressed in recombinant baculovirus infected Sf9 cells and purified by sequentially using GSH agarose and Ni-NTA agarose chromatography. The CaM kinase II Positive Control is designed to use for CycLex CaM kinase II kinase Assay Kit (Cat# CY-1173). The CaM kinase II Positive Control should be added to the well at 15 m units/well. Unused CaM kinase II Positive Control should be stored at -70°C .

Product Size: 3 units/100 μ L

Formulation: Supplied frozen in a buffer containing 20 mM Hepes-KOH (pH 7.5), 1 % BSA, 1 mM EDTA, 1 mM DTT, 50 mM NaCl, 0.03 % Brij35 and 50 % glycerol.

Source: Human Ca^{2+} /calmodulin-dependent protein kinase II, 1-328, containing an N-terminal GST tag and a C-terminal His tag, expressed in Sf9 cells.

Molecular Weight: 62 kDa doublet bands by SDS-PAGE analysis.

Purity: > 90 % pure as determined by SDS-PAGE analysis.

Substrates: CaM kinase II phosphorylates a number of substrates, including synthetic peptides.

Inhibitors: Selective CaM kinase II inhibitor has not been discovered yet.

Unit Definition: One unit is defined as the amount of kinase required to incorporate 1nmol of phosphate into the syntide-2 per minute at 30°C .

Assay Conditions: Assay activity of CaM kinase II in a 50 μ L reaction containing 20 mM Hepes KOH (pH 7.5), 0.1 mM EGTA, 5 mM MgCl_2 , 200 ng calmodulin, 2 mM CaCl_2 , 1 mM DTT, 100 μ M [γ ^{32}P] ATP (1 μ Ci), and 4 μ g of syntide-2. Start the reaction by adding 10 μ L of the enzyme, diluted 5-fold in a buffer containing 20 mM Hepes KOH (pH 7.5), 1 mM DTT, 0.03 % Brij35. Incubate for 30 minutes at 30°C . Terminate the reaction by spotting to phosphocellulose P81 paper, and then wash 4 times with 75 mM H_3PO_4 for 15 min and rinse P81 paper with ethanol. Dry filters and count in a liquid scintillation counter.

Storage and Stability: Stable for 12 months at -70°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot enzyme to avoid repeated freezing and thawing.



CaM kinase II Positive Control
Product Data Sheet



For Research Use Only, Not for use in diagnostic procedures

References:

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