



Plk3 Positive Control

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

Plk3 Positive Control

(Human, full length, recombinant enzyme expressed in *E. coli*.)

Cat# CY-E1176

Lot No.

For 200 Assays

(0.008 units / μL x 200 μL)

Product Description: Human full length Plk3, containing a *N*-terminal GST tag, expressed in *E. coli*. Purified by GSH agarose chromatography. The Plk3 Positive control is designed to use for Polo-like kinase 3 Assay /Inhibitor Screening Kit [Cat# CY-1186]. The Plk3 Positive Control should be added to the well at 8 m units/well. For instance, diluted positive control 1:10, use 10 μL for 1 assay. Unused Plk3 Positive control should be stored at -70°C .

Product Size: Full length Plk3: 1.6 units/200 μL

Formulation: The Plk3 Positive Control is supplied frozen in a buffer containing 20mM HEPES-KOH (pH 7.5), 1 % BSA, 1 mM DTT, 50mM NaCl, 0.03 % Brij35 and 50% glycerol.

Source: Human full length Plk3, containing *N*-and *C*-terminal His-tag, expressed in *E. coli*.

Molecular Weight: Plk3 demonstrates a single 97kDa band by SDS-PAGE analysis.

Purity: Plk3 is greater than 70% pure as determined by SDS-PAGE analysis.

Substrates: Plk3 phosphorylates a number of substrates, including p53, Cdc25A, Cdc25B and Cdc25C.

Inhibitors: Specific Plk3 inhibitor has not been discovered yet.

Unit Definitions: One unit is defined as the amount of kinase required to incorporate 1 nmol of phosphate into the GST-Cdc25C (167-267), per minute at 30°C .

Assay Conditions: Assay activity of Plk3 in a 50 μL reaction containing 20 mM Hepes KOH (pH 7.5), 5 mM MgCl_2 , 1 mM DTT, 100 μM [γ - ^{32}P] ATP (1 μCi), and 4 μg of GST-Cdc25C fusion protein. Start the reaction by adding 10 μL of the enzyme, diluted 50-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 adding 600 μL of cold 10 % TCA solution containing 0.2 % sodium pyrophosphate and stand on ice for 15 min. Filtrate acid insoluble material through GFC filters (Whatman Inc.), wash 4 times with 1 % TCA and rinse filters 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.

Related Products:

*Polo-like kinase 3 Assay /Inhibitor Screening Kit: Cat# CY-1176



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General References:

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