



Aurora C Positive Control

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

## Plk2 Positive Control

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

Cat# CY-E1183

Lot No.

For 200 Assays

(100 m units/ $\mu$ L  $\times$  100  $\mu$ L)

**Product Description:** Human full length Plk2, containing a *N*-terminal GST tag, expressed in *E. coli*. Purified by GSH agarose chromatography. The Plk2 Positive control is designed to use for Polo-like kinase 2 Assay /Inhibitor Screening Kit (Cat# CY-1183). The Plk2 Positive Control should be added to the well at 50 m units/well. For instance, diluted positive control 1:20, use 10  $\mu$ L for 1 assay. Unused Plk2 Positive control should be stored at below -70°C.

**Product Size:** Full length Plk2: 10 units/100  $\mu$ L

**Formulation:** The Plk2 Positive Control is supplied frozen in a buffer containing 20mM HEPES-KOH (pH 7.5), 0.1 % BSA, 1 mM DTT, 50mM NaCl, 0.03 % Brij35 and 50% glycerol.

**Source:** Human full length Plk2, containing N-terminal GST-tag, expressed in *E. coli*.

**Purity:** Full length Plk2 is greater than 40% pure as determined by SDS-PAGE analysis.

**Substrates:** Plk2 phosphorylates exogenous substrate,  $\alpha$ -casein and MBP.

**Inhibitors:** Specific Plk2 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  $\alpha$ -casein, per 10 minutes at 30°C.

**Assay Conditions:** Assay activity of Plk2 in a 50  $\mu$ L reaction containing 20 mM Tris-HCl (pH 8.0), 10 mM MgCl<sub>2</sub>, 1 mM DTT, 100  $\mu$ M [ $\gamma$ -<sup>32</sup>P] ATP (1  $\mu$ Ci), and 4  $\mu$ g of  $\alpha$ -casein. Start the reaction by adding 10 $\mu$ L of the enzyme, diluted 20-fold in a buffer containing 20 mM Tris-HCl (pH 8.0), 1 mM DTT, 0.03 % Brij35. Incubate for 30 minutes at 30°C. Terminate the reaction by adding 600  $\mu$ L 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 1 Assay-Inhibitor Screening Kit: CY-1163
- \* Polo-like kinase 2 Assay-Inhibitor Screening Kit: CY-1183
- \* Polo-like kinase 3 Assay-Inhibitor Screening Kit: CY-1176
- \* Plk1 Positive control: Cat# CY-E1163
- \* Plk3 Positive control: Cat# CY-E1176



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**General References:**

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