



Aurora C Positive Control

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

## Aurora C Positive Control

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

Cat# CY-E1174-2

Lot No. 20L11

For 200 assays

(0.08 units /  $\mu\text{L}$  x 100  $\mu\text{L}$ )

**Product Description:** Human full length Aurora C, containing a *N*-terminal GST-tag, expressed in *E. coli*. Purified by GSH-agarose chromatography. The Aurora C Positive control is designed to use for Aurora Family Assay /Inhibitor Screening Kit [Cat# CY-1174]. The Aurora C Positive Control should be added to the well at 40 m units/well. For instance, diluted positive control 1:20, use 10  $\mu\text{L}$  for 1 assay. Unused Aurora C Positive control should be stored at  $-70^{\circ}\text{C}$ .

**Product Size:** Full length Aurora C: 8 units/100  $\mu\text{L}$

**Formulation:** The Aurora C Positive Control is supplied frozen in a buffer containing 20mM HEPES-KOH (pH 7.5), 1 % BSA, 2 mM DTT, 50mM NaCl, 0.03 % Brij35 and 50% glycerol.

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

**Molecular Weight:** Aurora C demonstrates a single 56.4 kDa band by SDS-PAGE analysis.

**Purity:** Aurora C is greater than 85% pure as determined by SDS-PAGE analysis.

**Substrates:** Aurora C phosphorylates Histone H3 *in vitro*.

**Inhibitors:** Specific Aurora C inhibitor has not been discovered yet. However ZM447439 was known as a specific inhibitor for Aurora kinase family<sup>(10)</sup>.

**Unit Definitions:** One unit is defined as the amount of kinase required to incorporate 1 nmol of phosphate into the Histone H3, per minute at  $30^{\circ}\text{C}$ .

**Assay Conditions:** Assay activity of Aurora C in a 50  $\mu\text{L}$  reaction containing 20 mM Hepes KOH (pH 7.5), 5 mM  $\text{MgCl}_2$ , 1 mM DTT, 100  $\mu\text{M}$  [ $\gamma$ - $^{32}\text{P}$ ] ATP (1  $\mu\text{Ci}$ ), and 4  $\mu\text{g}$  of Histone H3. Start the reaction by adding 10 $\mu\text{L}$  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  $30^{\circ}\text{C}$ . Terminate the reaction by adding 600  $\mu\text{L}$  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  $-70^{\circ}\text{C}$  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:

- \* Aurora A kinase Positive control: Cat# CY-E1165
- \* Aurora B kinase Positive control: Cat# CY-E1174-1
- \* Aurora-A kinase Assay/Inhibitor Screening Kit: Cat# CY-1165
- \* Aurora Family Kinase Assay/Inhibitor Screening Kit: Cat# CY-1174

**General References:**

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