



Pim-1 Positive Control

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

Pim-1 Positive Control

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

Cat# CY-E1167

Lot No.11E10
For 200 assays
(0.02 units / μL x 100 μL)

10X BSA (100 $\mu\text{g}/\text{mL}$ x 0.25 mL) is supplied to make an enzyme dilution buffer

Product Description: Human full length Pim-1, containing a *N*-terminal GST tag, expressed in *E. coli*. Purified by GSH agarose chromatography. The Pim-1 Positive control is designed to use for Pim-1 Assay/Inhibitor Screening Kit [Cat# CY-1167]. The Pim-1 Positive Control should be added to the well at 10 m units/well. For instance, diluted positive control 1:20, use 10 μL for 1 assay. Unused Pim-1 Positive control should be stored at -70°C .

Product Size: Full length Pim-1: 2 units/100 μL

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

Dilution: The Pim-1 Positive control should be diluted with an enzyme dilution buffer to avoid inactivating the enzyme activity in low protein concentration condition. Enzyme dilution buffer: Mix 9-parts of Kinase buffer and 1-part of 10X BSA (100 $\mu\text{g}/\text{mL}$)

Source: Human full length Pim-1, containing *N*-terminal GST tag, expressed in *E. coli*.

Molecular Weight: Pim-1 demonstrates a single 60 kDa band by SDS-PAGE analysis.

Purity: Pim-1 is greater than 90 % pure as determined by SDS-PAGE analysis.

Substrates: Pim-1 phosphorylates a number of substrates, including p21waf1, NuMA, HP1beta and C-TAK1.

Inhibitors: Specific Pim-1 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 MBP per minute at 30°C .

Assay Conditions: Assay activity of Pim-1 in a 50 μL reaction containing 20 mM Hepes KOH (pH 6.5), 5 mM MgCl_2 , 1 mM DTT, 100 μM [γ - ^{32}P] ATP (1 μCi), and 4 μg of GST-p21waf1. Start the reaction by adding 10 μL of the enzyme, diluted 50-fold in a buffer containing 20 mM Hepes KOH (pH 6.5), 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.



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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:

* Pim-1 Kinase Assay/Inhibitor Screening Kit: Cat# CY-1167

General References:

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