



p38 alpha Positive Control

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

## p38 alpha Positive Control

(Human, full length, recombinant enzyme expressed in *E. coli*)  
Cat# CY-E1177

Lot No.  
For 200 Assays  
(20 m units /  $\mu\text{L}$  x 100 $\mu\text{L}$ )

**Product Description:** Full length human p38 alpha, containing a *N*-terminal GST tag, expressed in *E. coli*. Purified by GSH agarose chromatography. The p38 alpha Positive Control is designed to use for CycLex p38 Kinase Assay /Inhibitor Screening Kit [Cat# CY-1177]. The p38 alpha Positive Control should be added to the well at 10 m units/well. For instance, diluted positive control 1:20, use 10  $\mu\text{L}$  for 1 assay. Unused the p38 alpha Positive Control should be stored at  $-70^{\circ}\text{C}$ .

**Product Size:** Full length human p38 alpha: 2 units/100  $\mu\text{L}$

**Formulation:** The p38 alpha Positive Control is supplied frozen in a buffer containing 20mM Hepes-KOH (pH 7.5), 1 % BSA, 1mM EDTA, 1 mM DTT, 50mM NaCl, 0.03 % Brij35 and 50% glycerol.

**Source:** Recombinant Full length human p38 alpha containing *N*-terminal GST tag, expressed in *E. coli*.

**Molecular Weight:** Human p38 alpha demonstrates a single 64 kDa band by SDS-PAGE analysis.

**Purity:** Human p38 alpha is greater than 70% pure as determined by SDS-PAGE analysis.

**Substrates:** Human p38 alpha reported to phosphorylate endogenous substrate , ATF2.

**Inhibitors:** SB 202190, SB 220025 and SB 203580 are known as effective p38 inhibitor.

**Unit Definitions:** One unit is defined as the amount of kinase required to incorporate 1 nmol of phosphate into the ATF2, per minute at  $30^{\circ}\text{C}$ .

**Assay Conditions:** Assay activity of Human p38 alpha in a 50  $\mu\text{L}$  reaction containing 20 mM Hepes KOH (pH 7.5), 5 mM  $\text{MgCl}_2$ , 5 mM  $\text{MnCl}_2$ , 1 mM DTT, 100  $\mu\text{M}$  [ $\gamma$ - $^{32}\text{P}$ ] ATP (1  $\mu\text{Ci}$ ), and 4  $\mu\text{g}$  of GST-ATF2 fusion protein. 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. 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:**

\* CycLex p38 Kinase Assay/Inhibitor Screening Kit: Cat# CY-1177



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**General References:**

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