



MAPKAP-kinase 2 Positive Control

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

MAPKAP-kinase 2 Positive Control

(Human, full length, recombinant enzyme expressed in *E. coli*)
Cat# CY-E1166

Lot No.
For 200 Assays
(0.04 units / μL x 100 μL)

Product Description: Constitutive active form of human full length MAPKAP-kinase 2, in which there are two mutations T222E and T334E, containing a *N*-terminal GST tag, expressed in *E. coli*. Purified by GSH agarose chromatography. The MAPKAP-kinase 2 Positive control is designed to use for MAPKAP-kinase 2 Assay/Inhibitor Screening Kit Kit-1 [Cat# CY-1166]. The MAPKAP-kinase 2 Positive Control should be added to the well at 20 m units/well. For instance, diluted positive control 1:20, use 10 μL for 1 assay. Unused MAPKAP-kinase 2 Positive control should be stored at -70°C .

Product Size: Full length MAPKAP-kinase 2 (T222E and T334E): 4 units/100 μL

Formulation: The MAPKAP-kinase 2 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: Human full length MAPKAP-kinase 2 (T222E and T334E), containing *N*-terminal GST tag, expressed in *E. coli*.

Molecular Weight: MAPKAP-kinase 2 demonstrates a single 63 kDa band by SDS-PAGE analysis.

Purity: MAPKAP-kinase 2 is greater than 80 % pure as determined by SDS-PAGE analysis.

Substrates: MAPKAP-kinase 2 phosphorylates a number of substrates, including HSP27, 5-lipoxygenase and LSP1.

Inhibitors: Specific MAPKAP-kinase 2 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 GST-LSP1 per minute at 30°C .

Assay Conditions: Assay activity of MAPKAP-kinase 2 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-LSP1. 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.



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Related Products:

- * MAPKAP-kinase 2 Assay/Inhibitor Screening Kit: Cat# CY-1166
- * Anti-phospho-LSP1 Ser204 monoclonal antibody (AT-1E6): Cat# CY-M1019

General References:

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