



DYRK2 Positive Control

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

DYRK2 Positive Control

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

Cat# CY-E1181

Lot No. 25A11

For 200 Assays

(0.04 units / μL x 100 μL)

Product Description: Human full length DYRK2, containing a *N*-terminal GST, expressed in *E. coli*. Purified by GSH-Sepharose chromatography. The DYRK2 Positive control is designed to use for CycLex DYRK2 Kinase Assay/Inhibitor Screening Kit [Cat# CY-1181]. The DYRK2 Positive Control should be added to the well at 20 m units/well. For instance, dilute the Positive Control 1:20, use 10 μL for 1 assay. Unused DYRK2 Positive Control should be stored at below -70°C .

Product Size: Full length DYRK2: 4 units/100 μL

Formulation: The DYRK2 Positive Control is supplied frozen in a buffer containing 20mM HEPES-KOH (pH 7.5), 1 % BSA, 1 mM DTT, 50mM NaCl, 0.03 % Brij35 and 50 % glycerol.

Source: Human full length DYRK2, containing *N*-terminal GST, expressed in *E. coli*.

Molecular Weight: DYRK2 demonstrates a 84 kDa by SDS-PAGE analysis.

Purity: DYRK2 is greater than 65 % pure as determined by SDS-PAGE analysis.

Substrates: DYRK2 phosphorylates a numerous of substrates, including NFATc and p53.

Inhibitors: No specific DYRK2 inhibitor is known at present.

Unit Definitions: One unit is defined as the amount of kinase required to incorporate 1 nmol of phosphate into the GST-p53 N-ter, per minute at 30°C .

Assay Conditions: Assay activity of DYRK2 in a 50 μL reaction containing 20 mM Hepes KOH (pH 7.5), 5 mM MgCl_2 , 1 mM DTT, 50 μM [γ - ^{32}P] ATP (1 μCi), and 4 μg of GST-p53 N-ter fusion protein. 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.

Related Products:

* DYRK2 assay/Inhibitor Screening Kit: Cat# CY-1181

* Anti-phospho-p53 S46 (TK-4D4) monoclonal antibody: Cat# CY-M1022



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General References:

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PRODUCED BY

CycLex Co., Ltd.
1063-103 Terasawaoka
Ina, Nagano 396-0002
Japan
Fax: +81-265-76-7618
e-mail: info@cyclex.co.jp
URL: <http://www.cyclex.co.jp>

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