



DMPK Positive Control (Full length)

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

DMPK Positive Control (Full length) (Human, recombinant protein expressed in Sf9) Cat# CY-E1160-2

Lot No. 18B14
For 200 Assays
(0.01 units / μL x 200 μL)

Product Description: Human full length myotonic dystrophy protein kinase (DMPK), expressed by baculovirus system and purified by conventional column chromatography. The DMPK Positive control is designed to use for CycLex Rho-kinase Assay Kit (Cat# CY-1160). The DMPK Positive Control should be added to the well at 10 m units/well. For instance, diluted positive control 1:10, use 10 μL for 1 assay. Unused DMPK Positive control should be stored at -70°C .

Product Size: Recombinant DMPK: 2unit/200 μL

Formulation: The DMPK Positive Control is supplied frozen in a buffer containing 50mM Tris-HCl (pH 7.5), 150mM NaCl, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA and 25% glycerol.

Source: Human myotonic dystrophy protein kinase (DMPK), residues 1-629, containing N-terminal GST tag, expressed in wheat germ expression system. Gene accession number: NM_004409

Molecular Weight: DMPK demonstrates a single 105kDa band by SDS-PAGE analysis.

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

Substrates: DMPK phosphorylates MBS/MYPT1.

Inhibitors: Specific inhibitor has not been discovered.

Unit Definitions: One unit is defined as the amount of kinase required to incorporate 1 nmol of phosphate into the GST-MBS/MYPT1 (654-880), per minute at 30°C .

Assay Conditions: Assay activity of DMPK 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- MBS/MYPT1 fusion protein. Start the reaction by adding 10 μL of the enzyme, diluted 2-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:

Cat#: CY-E1160-2

1

Version#: 140218



DMPK Positive Control (Full length)

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

- * Rho-kinase Assay Kit: Cat# CY-1160
- * Rho-kinase II Positive control: Cat# CY-E1160-1
- * Anti-phospho-MBS/MYPT1-Thr697 monoclonal antibody (AF-20): Cat# CY-M1011

References:

1. Dunne PW, *et al.*, *Biochemistry*. **33**(35):10809-14, 1994.
2. Muranyi A, *et al.*, *FEBS Lett*. **493**(2-3):80-4, 2001.
3. Bush EW, *et al.*, *Biochemistry*. **39**(29):8480-90, 2000.

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>

CycLex/CircuLex products are supplied for research use only. CycLex/CircuLex products and components thereof may not be resold, modified for resale, or used to manufacture commercial products without prior written approval from CycLex Co., Ltd. To inquire about licensing for such commercial use, please contact us via email.