

c-Src Positive Control Product Data Sheet For Research Use Only, Not for use in diagnostic procedures



c-Src Positive Control (Human, recombinant protein expressed in Sf9) Cat# CY-E1083

Lot No. For 100 Assays 100 units (1 unit/µL)

Product Description:

Catalytic domain of human Src, corresponding to 226-536 a.a. containing an *N*-terminal GST tag and a C-terminal His tag, expressed in recombinant Baculovirus-infected sf9 cells. Purified by sequentially using GSH agarose and Ni-NTA agarose chromatography. The Src Positive control is designed to use for CycLex Src Kinase Assay/Inhibitor Screening Kit (Cat# CY-1083). The Src Positive Control should be added to the well at 1 unit/well. For instance, diluted positive control 1:10, use 10 μ L for 1 assay. Unused Src Positive Control should be stored at -70°C.

Product Size: 100 units/100 µL

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

Source: Human Src containing N-terminal GST-tag and C-terminal His tag, expressed in sf9 cells.

Molecular Weight: Src Positive Control demonstrates a single 60 kDa bands by SDS-PAGE analysis.

Purity: Src Positive Control is greater than 70 % pure as determined by SDS-PAGE analysis.

Substrates: Src phosphorylates poly[Glu, Tyr] 4:1 as an exogenous substrate.

Inhibitors: PP2 is known as selective small molecule Src inhibitor.

Unit Definition: One unit is defined as the amount of kinase required to incorporate 1 nmol of phosphate into the Src (autophosphorylation) under oligomerized and activated condition per 60 minute at 30° C.

Assay Conditions: Assay activity of Src in a 50 μ L reaction containing 20 mM Hepes KOH (pH 7.5), 4 mM MgCl₂, 2 mM MnCl₂, 1 mM DTT, 50 μ M [gamma ³²P] ATP (1 μ Ci), and 4 μ g of CycLex-"Tyrosine kinase-binding module". Start the reaction by adding 10 μ L of the enzyme, diluted 10-fold in a buffer containing 20 mM Hepes KOH (pH 7.5), 1 mM DTT, 0.03 % Brij35. Incubate for 60 minutes at 30°C. Terminate the reaction by adding 600 μ 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°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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References:

- 1. Parsons, J. T., and Parsons, S. J. Src family protein tyrosine kinases: cooperating with growth factor and adhesion signaling pathways. *Curr. Opin. Cell Biol.*, **9**: 187–192, 1997
- 2. Erpel, T., and Courtneidge, S. A. Src family protein tyrosine kinases and cellular signal transduction pathways. *Curr. Opin. Cell Biol.*, 7: 176–182, 1995
- 3. Brickell, P. M. The p60c-src family of protein-tyrosine kinases: structure, regulation, and function. *Crit. Rev. Oncog.*, **3**: 401–446, 1992
- 4. Collett, M. S., Brugge, J. S., and Erikson, R. L. Characterization of a normal avian cell protein related to the avian sarcoma virus transforming gene product. *Cell*, **15**:1363–1369, 1978
- 5. Summy JM, Gallick GE. Src family kinases in tumor progression and metastasis. *Cancer Metastasis Rev.* 22(4):337-58, 2003
- 6. Guy, C. T., Muthuswamy, S. K., Cardiff, R. D., Soriano, P., and Muller, W. J. Activation of the c-Src tyrosine kinase is required for the induction of mammary tumors in transgenic mice. *Genes Dev.*, **8**: 23–32, 1994
- Irby, R. B.; Mao, W.; Coppola, D.; Kang, J.; Loubeau, J. M.; Trudeau, W.; Karl, R.; Fujita, D. J.; Jove, R.; Yeatman, T. J.: Activating SRC mutation in a subset of advanced human colon cancers. *Nature Genet.* 21: 187-190, 1999

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