cyclin Y (m2): 293T Lysate: sc-119552



The Power to Question

BACKGROUND

Cell proliferation is controlled at specific stages of the cell cycle by distinct protein kinase complexes. These complexes consist of a catalytic subunit associating with a specific regulatory subunit to form the active kinase. The cyclins, which include cyclin A, B, C, D, E, F, G, H, I, K, L, T and their related proteins, including Dbf4, comprise the regulatory subunits of these kinase complexes. The controlled activation of the kinase complexes at various intervals of the cell cycle is regulated by the availability of the cyclins to the catalytic subunit. Unlike the catalytic subunit, which is expressed continually, the expression and stability of the regulatory subunit fluctuates depending on the stage of the cell cycle and, thereby, regulates the kinase activity. Cyclin Y, also known as CCNX, CFP1, CBCP1 or CCNY, is a 341 amino acid protein belonging to the cyclin family. Cyclin Y exists as three alternatively spliced isoforms and contains a cyclin N-terminal domain. Cyclin Y may control cell division cycles and regulate cyclin-dependent kinases.

REFERENCES

- Gallant, P., et al. 1994. Identification of a novel vertebrate cyclin: cyclin B3 shares properties with both A- and B-type cyclins. EMBO J. 13: 595-605.
- Mikulits, W., et al. 1997. Dynamics of cell cycle regulators: artifact-free analysis by recultivation of cells synchronized by centrifugal elutriation. DNA Cell Biol. 16: 849-859.
- 3. Kolonin, M.G., et al. 2000. A role for cyclin J in the rapid nuclear division cycles of early *Drosophila embryogenesis*. Dev. Biol. 227: 661-672.
- 4. Kong, M., et al. 2000. Cyclin F regulates the nuclear localization of cyclin B1 through a cyclin-cyclin interaction. EMBO J. 19: 1378-1388.
- 5. Malara, N.M., et al. 2006. Ageing, hormonal behaviour and cyclin D1 in ductal breast carcinomas. Breast 15: 81-89.
- 6. Wikman, H., et al. 2006. Regulation of the G_1/S phase of the cell cycle and alterations in the RB pathway in human lung cancer. Expert Rev. Anticancer Ther. 6: 515-530.
- 7. Franke, A., et al. 2008. Replication of signals from recent studies of Crohn's disease identifies previously unknown disease loci for ulcerative colitis. Nat. Genet. 40: 713-715.
- Bae, J.Y., et al. 2009. Reversible regulation of cell cycle-related genes by epigallocatechin gallate for hibernation of neonatal human tarsal fibroblasts. Cell Transplant. 18: 459-469.
- 9. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 612786. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: Ccny (mouse) mapping to 18 A1.

PRODUCT

cyclin Y (m2): 293T Lysate represents a lysate of mouse cyclin Y transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

cyclin Y (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive cyclin Y antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com