

# cyclin YL2 (N-16): sc-246387

## 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, Y 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, thereby regulating kinase activity. Cyclin YL2, also known as CCNYL2, is a 361 amino acid protein belonging to the cyclin family and the cyclin Y subfamily. Cyclin YL2 contains one cyclin N-terminal domain and is encoded by a gene located on human chromosome 10p15.3.

## REFERENCES

1. 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.
2. 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<sub>1</sub>/S phase of the cell cycle and alterations in the RB pathway in human lung cancer. *Expert Rev. Anticancer Ther.* 6: 515-530.
7. Liu, D., et al. 2010. Cyclin Y is a novel conserved cyclin essential for development in *Drosophila*. *Genetics* 184: 1025-1035.

## CHROMOSOMAL LOCATION

Genetic locus: CCNYL2 (human) mapping to 10p15.3.

## SOURCE

cyclin YL2 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of cyclin YL2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-246387 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

cyclin YL2 (N-16) is recommended for detection of cyclin YL2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with cyclin YL1 or cyclin YL3.

Suitable for use as control antibody for cyclin YL2 siRNA (h): sc-90634, cyclin YL2 shRNA Plasmid (h): sc-90634-SH and cyclin YL2 shRNA (h) Lentiviral Particles: sc-90634-V.

Molecular Weight of cyclin YL2: 41 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.