# SANTA CRUZ BIOTECHNOLOGY, INC.

# cyclin J (S-14): sc-104859



# BACKGROUND

Cyclin J is a 372 amino acid protein encoded by the human gene CCNJ located on chromosome 10. Cyclin J belongs to the cyclin family and contains one cyclin N-terminal domain. A cyclin forms a complex with its partner cyclindependent kinase (Cdk), which activates the protein kinase function of the Cdk. Cyclins are so named because their concentration varies in a cyclical fashion during the cell cycle. They are produced or degraded as needed in order to drive the cell through the different stages of the cell cycle. When its concentrations in the cell are low, the cyclin detaches from the Cdk, inhibiting the activity of the enzyme, probably by causing a protein chain to block the enzymatic site. Cyclin J-associated kinase activity is required for the early embryonic division cycles.

### REFERENCES

- 1. Bai, C., Richman, R. and Elledge, S.J. 1994. Human cyclin F. EMBO J. 13: 6087-6098.
- 2. Finley, R.L., Jr., Thomas, B.J., Zipursky, S.L. and Brent, R. 1996. Isolation of Drosophila cyclin D, a protein expressed in the morphogenetic furrow before entry into S phase. Proc. Natl. Acad. Sci. USA 93: 3011-3015.
- 3. Kong, M., Barnes, E.A., Ollendorff, V. and Donoghue, D.J. 2000. Cyclin F regulates the nuclear localization of cyclin B1 through a cyclin-cyclin interaction. EMBO J. 19: 1378-1388.
- 4. Kolonin, M.G. 2000. A role for cvclin J in the rapid nuclear division cvcles of early Drosophila embryogenesis. Dev. Biol. 227: 661-672.
- 5. Fung, T.K. and Poon, R.Y. 2005. A roller coaster ride with the mitotic cyclins. Semin. Cell Dev. Biol. 16: 335-342.
- 6. Makrantonaki, E. and Zouboulis, C.C. 2007. Molecular mechanisms of skin aging: state of the art. Ann. N.Y. Acad. Sci. 1119: 40-50.
- 7. Sarasin, A. and Stary, A. 2007. New insights for understanding the transcription-coupled repair pathway. DNA Repair 6: 265-269.

# CHROMOSOMAL LOCATION

Genetic locus: CCNJ (human) mapping to 10q24.1; Ccnj (mouse) mapping to 19 C3.

### SOURCE

cyclin J (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of cyclin J of human origin.

# PRODUCT

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

Blocking peptide available for competition studies, sc-104859 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **STORAGE**

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

#### **APPLICATIONS**

cyclin J (S-14) is recommended for detection of cyclin J of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 other cyclin family members.

cyclin J (S-14) is also recommended for detection of cyclin J in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for cyclin J siRNA (h): sc-90703, cyclin J siRNA (m): sc-142656, cyclin J shRNA Plasmid (h): sc-90703-SH, cyclin J shRNA Plasmid (m): sc-142656-SH, cyclin J shRNA (h) Lentiviral Particles: sc-90703-V and cyclin J shRNA (m) Lentiviral Particles: sc-142656-V.

Molecular Weight of cyclin J: 43 kDa.

positive Controls: human kidney extract: sc-363764.

# **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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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<sup>™</sup> Mounting Medium: sc-24941.





cyclin J (S-14): sc-104859. Western blot analysis of cyclin J expression in human kidney tissue extract

# **RESEARCH USE**

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

