

# cyclin B (B-6): sc-166152

## BACKGROUND

*Drosophila melanogaster* is a proven and effective model for studying developmental and cellular processes common to higher eukaryotes. Approximately 13,600 genes have been elucidated from more than 120 megabases of euchromatin, and they are organized among the chromosomes 2, 3, 4, X and Y, with the Y chromosome being predominately heterochromatic. *Drosophila* genes can be categorized based on the type of protein for which they encode and are represented by six major classifications, which include intracellular signaling proteins, transmembrane proteins, RNA binding proteins, secreted factors, transcription regulators (basic helix-loop-helix, homeodomain containing, zinc finger containing and chromatin associated) or other functional proteins. Cyclins are a diverse family of proteins whose defining feature is that they bind and activate cyclin dependent kinase (Cdk) family members and influence cell-cycle control. *Drosophila* cyclin A and B both regulate the cyclin dependent kinase Cdc2, with cyclin A expression peaking in prophase, while cyclin B expression peaks until metaphase.

## REFERENCES

1. Dalby, B. and Glover, D.M. 1992. 3' non-translated sequences in *Drosophila* cyclin B transcripts direct posterior pole accumulation late in oogenesis and perinuclear association in syncytial embryos. *Development* 115: 989-997.
2. Rimmington, G., et al. 1994. Expression of N-terminally truncated cyclin B in the *Drosophila* larval brain leads to mitotic delay at late anaphase. *J. Cell Sci.* 107: 2729-2738.
3. Fotedar, R. and Fotedar, A. 1995. Cell cycle control of DNA replication. *Prog. Cell Cycle Res.* 1: 73-89.

## SOURCE

cyclin B (B-6) is a mouse monoclonal antibody raised against amino acids 1-300 of cyclin B of *Drosophila melanogaster* origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

cyclin B (B-6) is recommended for detection of cyclin B of *Drosophila melanogaster* origin by Western Blotting (starting dilution 1:100, 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).

Molecular Weight of cyclin B: 63 kDa.

Positive Controls: *Drosophila* line 2 whole cell lysate or Schneider's *Drosophila* line 2 whole cell lysate: sc-364794.

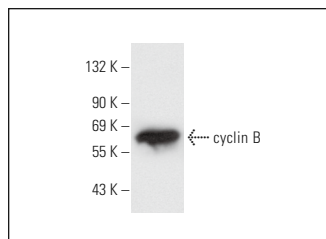
## STORAGE

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

## RESEARCH USE

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

## DATA



cyclin B (B-6): sc-166152. Western blot analysis of cyclin B expression in *Drosophila* line 2 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Zhao, Z., et al. 2018. Degalactotigonin, a natural compound from *Solanum nigrum* L., inhibits growth and metastasis of osteosarcoma through GSK3β inactivation-mediated repression of the hedgehog/Gli1 pathway. *Clin. Cancer Res.* 24: 130-144.
2. Ma, S., et al. 2018. TPX2 promotes cell proliferation and migration via PLK1 in OC. *Cancer Biomark.* 22: 443-451.
3. Yao, X., et al. 2018. Evodiamine promotes differentiation and inhibits proliferation of C2C12 muscle cells. *Int. J. Mol. Med.* 41: 1627-1634.
4. Zhu, L., et al. 2018. LOTUS domain protein MARF1 binds CCR4-NOT deadenylase complex to post-transcriptionally regulate gene expression in oocytes. *Nat. Commun.* 9: 4031.
5. Liao, S.E., et al. 2019. DEAD-box RNA helicase Belle posttranscriptionally promotes gene expression in an ATPase activity-dependent manner. *RNA* 25: 825-839.
6. Alqahtani, T., et al. 2020. Salinomycin and its derivatives as potent RET transcriptional inhibitors for the treatment of medullary thyroid carcinoma. *Int. J. Oncol.* 56: 348-358.
7. Wu, M.M., et al. 2020. Repurposing of niclosamide as a Stat3 inhibitor to enhance the anticancer effect of chemotherapeutic drugs in treating colorectal cancer. *Life Sci.* 262: 118522.
8. Das, S., et al. 2020. Genome-scale screening of deubiquitinase subfamily identifies USP3 as a stabilizer of Cdc25A regulating cell cycle in cancer. *Cell Death Differ.* 27: 3004-3020.

## PROTOCOLS

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