

# cyclin E2 (C-19): sc-9568

## BACKGROUND

Cyclin E, along with the three cyclin D proteins and cyclin C, has been shown to represent a putative G<sub>1</sub> cyclin on the basis of its cyclic pattern of mRNA expression, with maximal levels being detected near the G<sub>1</sub>/S boundary. cyclin E has been found to be associated with the transcription factor E2F in a temporally regulated manner. Cyclin E2 is a cyclin E-related protein that specifically interacts with Cdk2 and Cdk3 and with p27 and p21. Cyclin E2 expression peaks at the G<sub>1</sub>/S phase transition of the cell cycle, in parallel with cyclin E. Whereas cyclin E1 is expressed in most proliferating normal and tumor cells, cyclin E2 levels are low or undetectable in nontransformed cells, and are elevated in tumor-derived cells.

## REFERENCES

- Lew, D.J., et al. 1991. Isolation of three novel human cyclins by rescue of G<sub>1</sub> cyclin (Cln) function in yeast. *Cell* 66: 1197-1206.
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- Lees, E., et al. 1992. cyclin E/Cdk2 and cyclin A/Cdk2 kinases associate with p107 and E2F in a temporally distinct manner. *Genes Dev.* 6: 1874-1885.
- Lauper, N., et al. 1998. Cyclin E2: a novel Cdk2 partner in the late G<sub>1</sub> and S phases of the mammalian cell cycle. *Oncogene* 17: 2637-2643.
- Zariwala, M., et al. 1998. Cyclin E2, a novel human G<sub>1</sub> cyclin and activating partner of Cdk2 and Cdk3, is induced by viral oncoproteins. *Oncogene* 17: 2787-2798.
- Gudas, J.M., et al. 1999. Cyclin E2, a novel G<sub>1</sub> cyclin that binds Cdk2 and is aberrantly expressed in human cancers. *Mol. Cell. Biol.* 19: 612-622.

## CHROMOSOMAL LOCATION

Genetic locus: CCNE2 (human) mapping to 8q22.1; Ccne2 (mouse) mapping to 4 A1.

## SOURCE

cyclin E2 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of cyclin E2 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-9568 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.

## RESEARCH USE

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

## APPLICATIONS

cyclin E2 (C-19) is recommended for detection of cyclin E2 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).

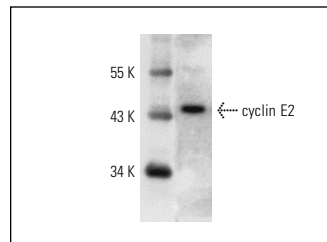
cyclin E2 (C-19) is also recommended for detection of cyclin E2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for cyclin E2 siRNA (h): sc-37594, cyclin E2 siRNA (m): sc-37595, cyclin E2 shRNA Plasmid (h): sc-37594-SH, cyclin E2 shRNA Plasmid (m): sc-37595-SH, cyclin E2 shRNA (h) Lentiviral Particles: sc-37594-V and cyclin E2 shRNA (m) Lentiviral Particles: sc-37595-V.

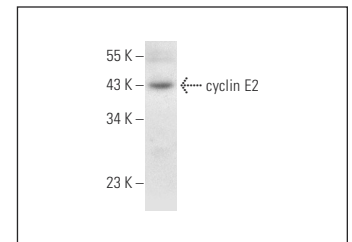
Molecular Weight of cyclin E2: 45 kDa.

Positive Controls: BJAB nuclear extract: sc-2145, IMR-32 nuclear extract: sc-2148 or Jurkat nuclear extract: sc-2132.

## DATA



cyclin E2 (C-19): sc-9568. Western blot analysis of cyclin E2 expression in Jurkat nuclear extract.



cyclin E2 (C-19): sc-9568. Western blot analysis of cyclin E2 expression in BJAB nuclear extract.

## SELECT PRODUCT CITATIONS

- Boylan, J.M. and Gruppuso, P.A. 2005. D-type cyclins and G<sub>1</sub> progression during liver development in the rat. *Biochem. Biophys. Res. Commun.* 330: 722-730.
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- Alzani, R., et al. 2010. Therapeutic efficacy of the pan-cdk inhibitor PHA-793887 *in vitro* and *in vivo* in engraftment and high-burden leukemia models. *Exp. Hematol.* 38: 259-269.


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Try **cyclin E2 (A-9): sc-28351**, our highly recommended monoclonal alternative to cyclin E2 (C-19).