

p-cyclin E (Thr 395)-R: sc-12917-R

BACKGROUND

Cyclins were first identified in invertebrates as proteins that oscillate dramatically through the cell cycle. These proteins have been well conserved through evolution and play a critical role in regulation of cell division. Cyclin E, along with the three cyclin D proteins and cyclin C, has been shown to represent a putative G₁ cyclin on the basis of its cyclic pattern of mRNA expression, with maximal levels being detected near the G₁/S boundary. Cyclin E has been found to be associated with the transcription factor E2F in a temporally regulated manner. The cyclin E/E2F complex is detected primarily during the G₁ phase of the cell cycle and decreases as cells enter S phase. E2F is known to be a critical transcription factor for expression of several S phase specific proteins.

REFERENCES

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3. Murray, A.W., Solomon, M.J. and Kirschner, M.W. 1989. The role of cyclin synthesis and degradation in the control of maturation promoting factor activity. *Nature* 339: 280-286.
4. Solomon, M.J., Glotzer, M., Lee, T.H., Phillips, M. and Kirschner, M.W. 1990. cyclin activation of p34Cdc2. *Cell* 63: 1013-1024.
5. Lew, D.J., Dulic, V. and Reed, S.I. 1991. Isolation of three novel human cyclins by rescue of G₁ cyclin (Cln) function in yeast. *Cell* 66: 1197-1206.
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7. Lees, E., Faha, B., Dulic, V., Reed, S.I. and Harlow, E. 1992. Cyclin E/Cdk2 and cyclin A/Cdk2 kinases associate with p107 and E2F in a temporally distinct manner. *Genes and Dev.* 6: 1874-1885.

CHROMOSOMAL LOCATION

Genetic locus: CCNE1 (human) mapping to 19q12; Ccne1 (mouse) mapping to 7 B2.

SOURCE

p-cyclin E (Thr 395)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated of cyclin E 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-12917-R P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-cyclin E (Thr 395)-R is recommended for detection of Thr 395 phosphorylated cyclin E 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).

p-cyclin E (Thr 395)-R is also recommended for detection of correspondingly phosphorylated Thr 395 cyclin E in additional species, including porcine.

Suitable for use as control antibody for cyclin E siRNA (h): sc-29288, cyclin E siRNA (m): sc-29289, cyclin E shRNA Plasmid (h): sc-29288-SH, cyclin E shRNA Plasmid (m): sc-29289-SH, cyclin E shRNA (h) Lentiviral Particles: sc-29288-V and cyclin E shRNA (m) Lentiviral Particles: sc-29289-V.

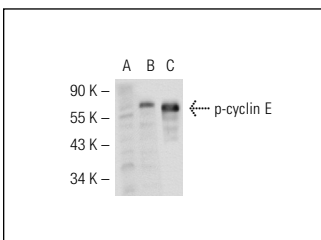
Molecular Weight of p-cyclin E: 53 kDa.

Positive Controls: cyclin E (h2): 293T Lysate: sc-170464.

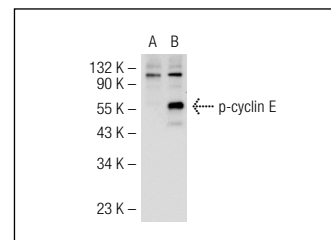
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



p-cyclin E (Thr 395)-R: sc-12917-R. Western blot analysis of cyclin E phosphorylation in non-transfected: sc-117752 (A), untreated human cyclin E transfected: sc-170464 (B) and lambda protein phosphatase (sc-200312A) treated human cyclin E transfected: sc-170464 (C) 293T whole cell lysates.



p-cyclin E (Thr 395)-R: sc-12917-R. Western blot analysis of cyclin E phosphorylation in non-transfected: sc-117752 (A) and human cyclin E transfected: sc-170464 (B) 293T whole cell lysates.

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.