

# cyclin E (E-4): sc-25303

## 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 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. The cyclin E/E2F complex is detected primarily during the G<sub>1</sub> 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

cyclin E (E-4) is a mouse monoclonal antibody raised against amino acids 1-145 of cyclin E of human origin.

## PRODUCT

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

Available as agarose conjugate for immunoprecipitation, sc-25303 AC, 500 µg/0.25 ml agarose in 1 ml.

## APPLICATIONS

cyclin E (E-4) is recommended for detection of cyclin E of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1,000), 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).

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 cyclin E: 53 kDa.

Positive Controls: 3611-RF nuclear extract: sc-2143, Jurkat nuclear extract: sc-2132 or K-562 nuclear extract: sc-2130.

## STORAGE

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

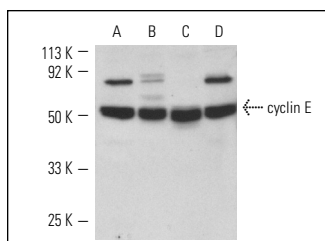
## PROTOCOLS

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

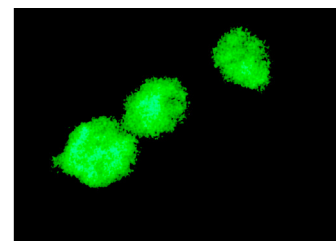
## RESEARCH USE

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

## DATA



cyclin E (E-4): sc-25303. Western blot analysis of cyclin E expression in KNRK (A), K-562 (B), Jurkat (C) and 3611-RF (D) nuclear extracts.



cyclin E (E-4): sc-25303. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing nuclear localization.

## SELECT PRODUCT CITATIONS

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