

cyclin F (H-300): sc-13009

BACKGROUND

Cyclins are the regulatory subunits of Cdc2 p34 and related cyclin dependent kinases (Cdks) which play critical roles in the control of cell cycle progression. The catalytic subunit for cyclin A and B is Cdc2 p34 kinase. The Cdc2-cyclin B complex controls G₂ to M transition whereas Cdc2-cyclin A regulates S phase progression. The G₁ to S transition, however, appears to be controlled by the G₁ cyclins. Cyclin D1 accumulates during G₁ and associates with Cdk2, Cdk4 and Cdk5. Cyclin E and Cdk2 interact during the G₁ to S transition. Cyclin F is the largest of the cyclins described to date. It contains an extensive PEST-rich C-terminus and a cyclin box region that is most related to cyclins A and B. Cyclin F is ubiquitously expressed in human cells but fluctuates dramatically through the cell cycle, peaking in G₂ like cyclin A and decreasing prior to decline of cyclin B. Cyclin F exhibits regulated subcellular localization, being localized in the nucleus in most cells, with a significant percentage of cells showing only perinuclear staining.

REFERENCES

1. Pines, J., et al. 1990. Human cyclin A is adenovirus E1A-associated protein p60 and behaves differently from cyclin B. *Nature* 346: 760-763.
2. Fang, F., et al. 1991. Evidence that the G₁-S and G₂-M transitions are controlled by different Cdc2 proteins in higher eukaryotes. *Cell* 66: 731-742.

CHROMOSOMAL LOCATION

Genetic locus: CCNF (human) mapping to 16p13.3; Ccnf (mouse) mapping to 17 A3.3.

SOURCE

cyclin F (H-300) is a rabbit polyclonal antibody raised against amino acids 15-300 mapping at the N-terminus of cyclin F 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.

APPLICATIONS

cyclin F (H-300) is recommended for detection of cyclin F 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 F (H-300) is also recommended for detection of cyclin F in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for cyclin F siRNA (h): sc-35138, cyclin F siRNA (m): sc-37596, cyclin F shRNA Plasmid (h): sc-35138-SH, cyclin F shRNA Plasmid (m): sc-37596-SH, cyclin F shRNA (h) Lentiviral Particles: sc-35138-V and cyclin F shRNA (m) Lentiviral Particles: sc-37596-V.

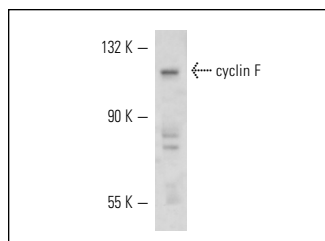
Molecular Weight of cyclin F: 110 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or Ramos nuclear extract: sc-2153.

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 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 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



cyclin F (H-300): sc-13009. Western blot analysis of cyclin F expression in Ramos nuclear extract.

SELECT PRODUCT CITATIONS

1. Nishimura, S., et al. 2010. The sensitivity and specificity of a new formula to distinguish endometrioid type endometrial carcinoma from ovarian endometrial carcinoma. *Eur. J. Obstet. Gynecol. Reprod. Biol.* 148: 67-72.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **cyclin F (B-6): sc-515207** or **cyclin F (2123D1a): sc-81242**, our highly recommended monoclonal alternatives to cyclin F (H-300).