

# Cdc27 (H-300): sc-5618

## BACKGROUND

Cell cycle events are regulated by the sequential activation and deactivation of cyclin dependent kinases (Cdks) and by the proteolysis of cyclins. The cell division cycle (Cdc) genes are required at various points in the cell cycle. Cdc25A, Cdc25B and Cdc25C protein Tyrosine phosphatases function as mitotic activators by dephosphorylating Cdc2 p34 on regulatory Tyrosine residues. Cdc6 is the human homolog of *Saccharomyces cerevisiae* Cdc6, which is involved in the initiation of DNA replication. Cdc37 appears to facilitate Cdk4/cyclin D1 complex formation and has been shown to form a stable complex with HSP 90. Cdc34, Cdc27 and Cdc16 function as ubiquitin-conjugating enzymes. Cdc34 is thought to be the structural and functional homolog of *Saccharomyces cerevisiae* Cdc34, which is essential for the G<sub>1</sub> to S phase transition. Cdc16 and Cdc27 are components of the APC (anaphase-promoting complex) which ubiquitinates cyclin B, resulting in cyclin B/Cdk complex degradation.

## CHROMOSOMAL LOCATION

Genetic locus: CDC27 (human) mapping to 17q21.32; Cdc27 (mouse) mapping to 11 E1.

## SOURCE

Cdc27 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Cdc27 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

Cdc27 (H-300) is recommended for detection of Cdc27 of mouse 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), flow cytometry (1 µg per 1 x 10<sup>6</sup> cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Cdc27 (H-300) is also recommended for detection of Cdc27 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Cdc27 siRNA (h): sc-77362, Cdc27 siRNA (m): sc-35041, Cdc27 shRNA Plasmid (h): sc-77362-SH, Cdc27 shRNA Plasmid (m): sc-35041-SH, Cdc27 shRNA (h) Lentiviral Particles: sc-77362-V and Cdc27 shRNA (m) Lentiviral Particles: sc-35041-V.

Molecular Weight of Cdc27: 97 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, Jurkat nuclear extract: sc-2132 or Cdc27 (h): 293T Lysate: sc-125120.

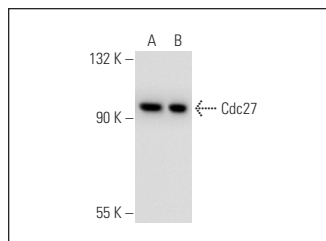
## STORAGE

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

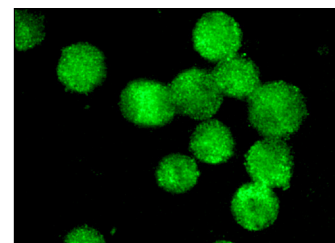
## RESEARCH USE

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

## DATA



Cdc27 (H-300): sc-5618. Western blot analysis of Cdc27 expression in non-transfected: sc-117752 (A) and mouse Cdc27 transfected: sc-125120 (B) 293T whole cell lysates.



Cdc27 (H-300): sc-5618. Immunofluorescence staining of methanol-fixed K-562 cells showing nuclear staining.

## SELECT PRODUCT CITATIONS

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5. Li, J.P., et al. 2007. Cyclin B1 proteolysis via p38 MAPK signaling participates in G<sub>2</sub> checkpoint elicited by arsenite. *J. Cell. Physiol.* 212: 481-488.
6. McNeely, S.C., et al. 2008. Mitotic arrest-associated apoptosis induced by sodium arsenite in A375 melanoma cells is BUBR1-dependent. *Toxicol. Appl. Pharmacol.* 231: 61-67.
7. Qin, L., et al. 2009. Aurora-A interacts with Cyclin B1 and enhances its stability. *Cancer Lett.* 275: 77-85.
8. Yen, A.H. and Yang, J.L. 2010. Cdc20 proteolysis requires p38 MAPK signaling and Cdh1-independent APC/C ubiquitination during spindle assembly checkpoint activation by cadmium. *J. Cell. Physiol.* 223: 327-334.
9. Yin, N., et al. 2012. IQGAP1 interacts with Aurora-A and enhances its stability and its role in cancer. *Biochem. Biophys. Res. Commun.* 421: 64-69.
10. Wang, J., et al. 2016. Ube2s regulates Sox2 stability and mouse ES cell maintenance. *Cell Death Differ.* 23: 393-404.



Try **Cdc27 (AF3.1): sc-9972** or **Cdc27 (C-4): sc-13154**, our highly recommended monoclonal alternatives to Cdc27 (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **Cdc27 (AF3.1): sc-9972**.