

Cdc27 (C-20): sc-6392

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 G₁ 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.

SOURCE

Cdc27 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-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.

Blocking peptide available for competition studies, sc-6392 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cdc27 (C-20) is recommended for detection of Cdc27 of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Cdc27 (C-20) 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 shRNA Plasmid (h): sc-77362-SH and Cdc27 shRNA (h) Lentiviral Particles: sc-77362-V.

Molecular Weight of Cdc27: 97 kDa.

Positive Controls: K-562 + PMA nuclear extract: sc-2131, Jurkat nuclear extract: sc-2132 or Jurkat + PMA nuclear extract: sc-2133.

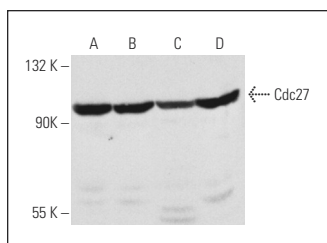
STORAGE

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

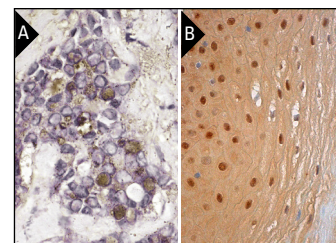
RESEARCH USE

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

DATA



Cdc27 (C-20): sc-6392. Western blot analysis of Cdc27 expression in untreated (A) and phorbol induced (B) K-562 and untreated (C) and phorbol induced (D) Jurkat nuclear extracts.



Cdc27 (C-20): sc-6392. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lung tumor showing nuclear staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing nuclear and cytoplasmic staining of squamous epithelial cells (B).

SELECT PRODUCT CITATIONS

- Stroschein, S.L., et al. 2001. Smad3 recruits the anaphase-promoting complex for ubiquitination and degradation of SnoN. *Genes Dev.* 21: 2822-2836.
- Steen, J.A., et al. 2008. Different phosphorylation states of the anaphase promoting complex in response to antimitotic drugs: a quantitative proteomic analysis. *Proc. Natl. Acad. Sci. USA* 105: 6069-6074.
- Colombo, R., et al. 2010. Targeting the mitotic checkpoint for cancer therapy with NMS-P715, an inhibitor of MPS1 kinase. *Cancer Res.* 70: 10255-10264.
- Tipton, A.R., et al. 2011. Closed MAD2 (C-MAD2) is selectively incorporated into the mitotic checkpoint complex (MCC). *Cell Cycle* 10: 3740-3750.

PROTOCOLS

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



Try **Cdc27 (AF3.1): sc-9972** or **Cdc27 (C-4): sc-13154**, our highly recommended monoclonal alternatives to Cdc27 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Cdc27 (AF3.1): sc-9972**.