

Cdc16 (N-18): sc-6393

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/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.

REFERENCES

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- Stepanova, L., et al. 1996. Mammalian p50 Cdc37 is a protein kinase-targeting subunit of HSP 90 that binds and stabilizes Cdk4. *Genes Dev.* 10: 1491-1502.
- Williams, R.S., et al. 1997. A human protein related to yeast Cdc6p. *Proc. Natl. Acad. Sci. USA* 94: 142-147.
- Yang, S., et al. 2007. Identification of genes with correlated patterns of variations in DNA copy number and gene expression level in gastric cancer. *Genomics* 89: 451-459.
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CHROMOSOMAL LOCATION

Genetic locus: CDC16 (human) mapping to 13q34.

SOURCE

Cdc16 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Cdc16 of human origin.

RESEARCH USE

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

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-6393 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cdc16 (N-18) is recommended for detection of Cdc16 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

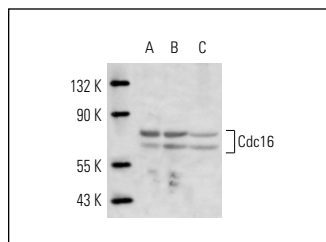
Cdc16 (N-18) is also recommended for detection of Cdc16 in additional species, including canine, bovine and avian.

Suitable for use as control antibody for Cdc16 siRNA (h): sc-35035, Cdc16 shRNA Plasmid (h): sc-35035-SH and Cdc16 shRNA (h) Lentiviral Particles: sc-35035-V.

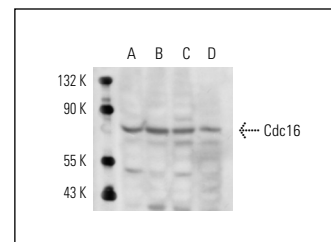
Molecular Weight of Cdc16: 77 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HuT 78 whole cell lysate: sc-2208 or K-562 whole cell lysate: sc-2203.

DATA



Cdc16 (N-18): sc-6393. Western blot analysis of Cdc16 expression in HuT 78 (A), K-562 (B) and ALL-SIL (C) whole cell lysates.



Cdc16 (N-18): sc-6393. Western blot analysis of Cdc16 expression in HeLa (A), HuT 78 (B), K-562 (C) and ALL-SIL (D) whole cell lysates.

SELECT PRODUCT CITATIONS

- Baugh, J.M., et al. 2009. Proteasomes can degrade a significant proportion of cellular proteins independent of ubiquitination. *J. Mol. Biol.* 386: 814-827.

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 or our catalog for detailed protocols and support products.