

Cdc25C (H-150): sc-5620

BACKGROUND

Cell cycle events are regulated by the sequential activation and deactivation of cyclin-dependent kinases (Cdks), including Cdk2 and Cdc2. Cdk2, in complexes with cyclin E and cyclin A, appears necessary for the onset and progression of DNA replication, while the Cdc2 kinase, in complexes with cyclin A or cyclin B, is required for the initiation of cell division. Wee 1 has been identified as a protein kinase that suppresses the entry into mitosis by mediating inhibiting tyrosine phosphorylation of Cdc2 p34. In contrast, members of the Cdc25 family of protein phosphatases function as mitotic activators by dephosphorylation of Cdc2 p34 on regulatory tyrosine and possibly threonine residues. The Cdc25 gene family consists of at least three members that share approximately 40% identity in their most conserved carboxy-terminal sequences.

CHROMOSOMAL LOCATION

Genetic locus: CDC25C (human) mapping to 5q31.2; Cdc25c (mouse) mapping to 18 B1.

SOURCE

Cdc25C (H-150) is a rabbit polyclonal antibody raised against amino acids 1-150 mapping at the N-terminus of Cdc25C 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

Cdc25C (H-150) is recommended for detection of Cdc25C 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), 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).

Suitable for use as control antibody for Cdc25C siRNA (h): sc-35038, Cdc25C siRNA (m): sc-35039, Cdc25C shRNA Plasmid (h): sc-35038-SH, Cdc25C shRNA Plasmid (m): sc-35039-SH, Cdc25C shRNA (h) Lentiviral Particles: sc-35038-V and Cdc25C shRNA (m) Lentiviral Particles: sc-35039-V.

Molecular Weight of Cdc25C: 55 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, PC-3 cell lysate: sc-2220 or Raji whole cell lysate: sc-364236.

STORAGE

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

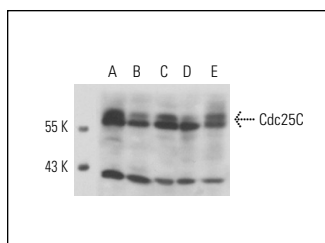
PROTOCOLS

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

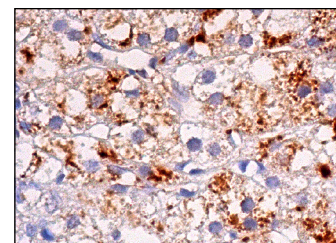
RESEARCH USE

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

DATA



Cdc25C (H-150): sc-5620. Western blot analysis of Cdc25C expression in K-562 (A), PC-3 (B), Raji (C), untreated HeLa (D) and nocodazole-treated HeLa (E) whole cell lysates.



Cdc25C (H-150): sc-5620. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Eymin, B., et al. 2006. p14 ARF triggers G₂ arrest through ERK-mediated Cdc25C phosphorylation, ubiquitination and proteasomal degradation. *Cell Cycle* 5: 759-765.
2. Shin, Y.C., et al. 2006. Inhibition of the Atm/p53 signal transduction pathway by Kaposi's sarcoma-associated herpesvirus interferon regulatory factor 1. *J. Virol.* 80: 2257-2266.
3. Barascu, A., et al. 2006. CDK1-cyclin B1 mediates the inhibition of proliferation induced by ω-3 fatty acids in MDA-MB-231 breast cancer cells. *Int. J. Biochem. Cell Biol.* 38: 196-208.
4. Zhu, F., et al. 2010. Prostaglandin (PG)D(2) and 15-deoxy-δ(12,14)-PGJ(2), but not PGE(2), mediate shear-induced chondrocyte apoptosis via protein kinase A-dependent regulation of polo-like kinases. *Cell Death Differ.* 17: 1325-1334.
5. Gan, F.F., et al. 2011. Shogaols at proapoptotic concentrations induce G₂/M arrest and aberrant mitotic cell death associated with tubulin aggregation. *Apoptosis* 16: 856-867.
6. Liu, J., et al. 2011. Virus infection disturbs cyclin expression, leading to cell cycle arrest in the unicellular marine algae *Emiliania huxleyi* and *Chrysochromulina ericina*. *Afr. J. Microbiol. Res.* 5: 1801-1807.
7. Nagle, A.A., et al. 2012. Induction of tumor cell death through targeting tubulin and evoking dysregulation of cell cycle regulatory proteins by multifunctional cinnamaldehydes. *PLoS ONE* 7: e50125.
8. Yeh, C.N., et al. 2013. Reappraisal of the therapeutic role of celecoxib in cholangiocarcinoma. *PLoS ONE* 8: e69928.



Try **Cdc25C (H-6): sc-13138** or **Cdc25C (F-5): sc-55513**, our highly recommended monoclonal alternatives to Cdc25C (H-150). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Cdc25C (H-6): sc-13138**.