

#9528 Store at -20°C

Phospho-cdc25C (Ser216) Antibody

100 µl
 (10 western blots)



Orders ■ 877-616-CELL (2355)
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Support ■ 877-678-TECH (8324)
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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

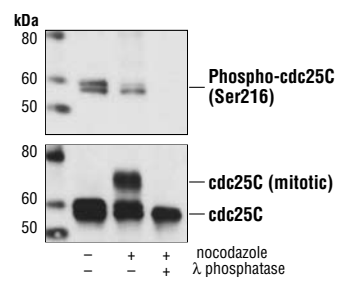
Applications	Species Cross-Reactivity*		Molecular Wt.	Source
	W	H		
Endogenous			60 kDa	

Background: cdc25 is a protein phosphatase responsible for dephosphorylating and activating cdc2, a crucial step in regulating the entry of all eukaryotic cells into mitosis (1). cdc25C is constitutively phosphorylated at Ser216 throughout interphase by c-TAK1, while phosphorylation at this site is DNA damage-dependent at the G2/M checkpoint (2). When phosphorylated at Ser216, cdc25C binds to members of the 14-3-3 family of proteins, sequestering cdc25C in the cytoplasm preventing premature mitosis (3). The checkpoint kinases Chk1 and Chk2 phosphorylate cdc25C at Ser216 in response to DNA damage (4,5).

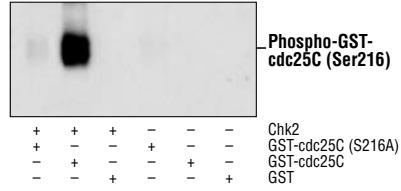
Specificity/Sensitivity: Phospho-cdc25C (Ser216) Antibody detects endogenous levels of cdc25C only when phosphorylated at Ser216.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser216 of human cdc25C. Antibodies are purified by protein A and peptide affinity chromatography.

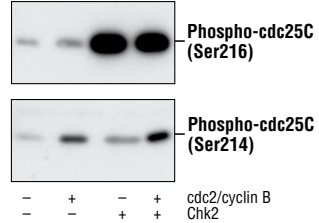
- Background References:**
- Jessus, C. and Ozon, R. (1995) *Prog. Cell Cycle Res.* 1, 215–228.
 - Peng, C.Y. et al. (1997) *Science* 277, 1501–1505.
 - Kumagai, A. and Dunphy, W.G. (1999) *Genes Dev.* 13, 1067–1072.
 - Blasina, A. et al. (1999) *Curr. Biol.* 9, 1–10.
 - Furnari, B. et al. (1999) *Mol. Biol. Cell* 10, 833–845.



Western blot analysis of HT29 cells, untreated, nocodazole-treated, and λ phosphatase-treated, using Phospho-cdc25C (Ser216) antibody (upper), and cdc25C (5H9) Rabbit mAb, #4688, (lower).



Western blot analysis of wild type GST-cdc25C and mutant GST-cdc25C Ser216Ala fusion proteins, untreated or phosphorylated by Chk2, using Phospho-cdc25C (Ser216) Antibody.



Western blot analysis of GST-cdc25C phosphorylated by cdc2/cyclin B (New England Biolabs #P6020), Chk2 or both kinases, using Phospho-cdc25C (Ser216) Antibody (upper) or Phospho-cdc25C (Ser214) antibody (lower).

Entrez-Gene ID #995
Swiss-Prot Acc. #P30307

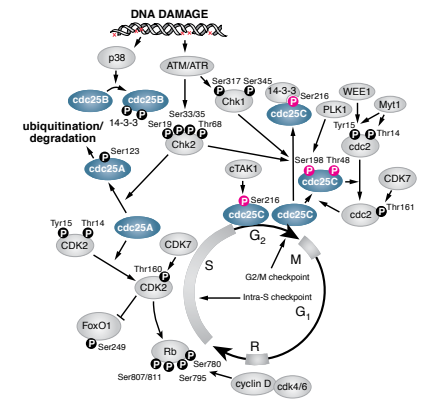
Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**
****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:
 Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.



IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.