

**#9529** Store at -20°C

# Phospho-cdc25C (Ser198) Antibody

- Small 100 µl (10 western blots)
- Large 300 µl (30 western blots)



**Orders** ■ 877-616-CELL (2355)  
 orders@cellsignal.com  
**Support** ■ 877-678-TECH (8324)  
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rev. 07/13/10

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.

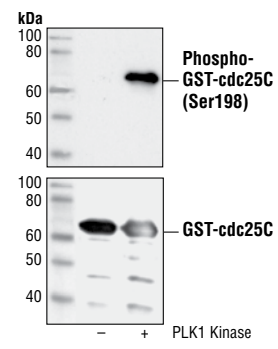
Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, F Transfected	H	80 kDa	Rabbit**

**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).

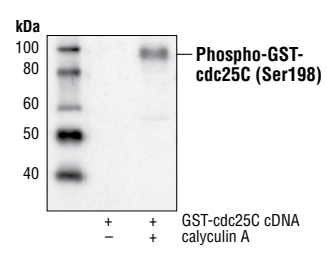
During prophase, polo-like kinase 1 (PLK1) phosphorylates cdc25C at Ser198, causing translocation from the cytoplasm to the nucleus, where cdc25C can interact with cdc2/cyclin B to allow for progression through the remaining stages of mitosis (6).

**Specificity/Sensitivity:** Phospho-cdc25C (Ser198) Antibody detects overexpressed levels of cdc25C only when phosphorylated at Ser198. This antibody does not cross-react with nonphosphorylated cdc25C.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser198 of human cdc25C. Antibodies are purified by protein A and peptide affinity chromatography.



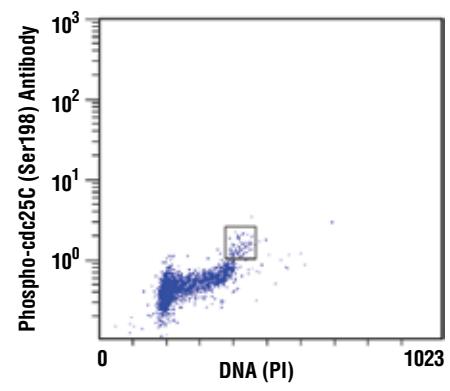
Western blot analysis of GST-cdc25C, unphosphorylated or phosphorylated by HTScan® PLK1 Kinase #7611, using Phospho-cdc25C (Ser198) Antibody (upper) or GST (26H1) Mouse mAb #2624 (lower).



Western blot analysis of extracts from HeLa cells over-expressing full-length GST-cdc25C, untreated or treated with calyculin A #9902, using Phospho-cdc25C (Ser198) Antibody.

**Background References:**

- Jessup, 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.
- Toyoshima-Morimoto, F. et al. (2002) *EMBO Rep.* 3, 341–348.



Flow cytometric analysis of untreated Jurkat cells, using Phospho-cdc25C (Ser198) Antibody versus propidium iodide (DNA content). The boxed population indicates phospho-cdc25C (Ser198)-positive cells.

**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.**

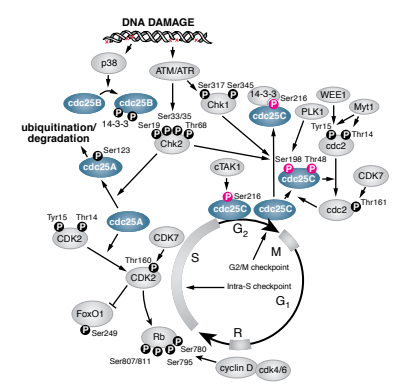
**\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Western blotting	1:1000
Flow Cytometry	1:25

**For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**

**Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.**



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

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**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.