

#4901 Store at -20°C

Phospho-cdc25C (Ser216) (63F9) Rabbit mAb

✓ 100 µl (10 western blots)



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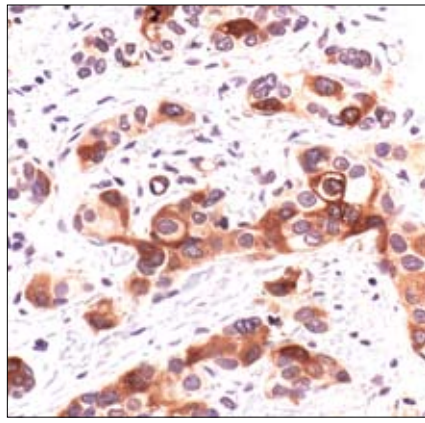
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP, IHC-P Endogenous	H, Mk	60 kDa	Rabbit IgG**

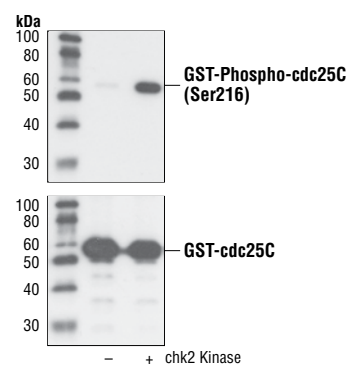
Background: cdc25 is a protein phosphatase responsible for dephosphorylating and activating cdc2, a crucial step in regulating the entry of all eukaryotic cells into mitosis (1). cdc25C is constitutively phosphorylated at Ser216 throughout interphase by c-TAK1, while phosphorylation at this site is DNA 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) (63F9) Rabbit mAb detects endogenous levels of cdc25C only when phosphorylated at Ser216.

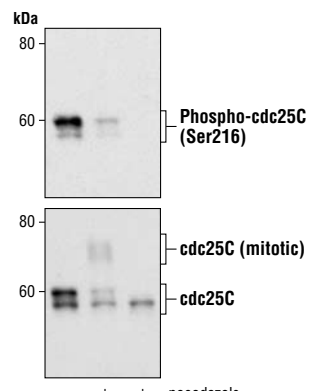
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser216 of human cdc25C.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma, using Phospho-cdc25C (Ser216) (63F9) Rabbit mAb.



Western blot analysis of GST-cdc25C, unphosphorylated or phosphorylated in vitro by Chk2, using Phospho-cdc25C (Ser216) (63F9) Rabbit mAb (upper) or cdc25C Antibody #9522 (lower).



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).

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.

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

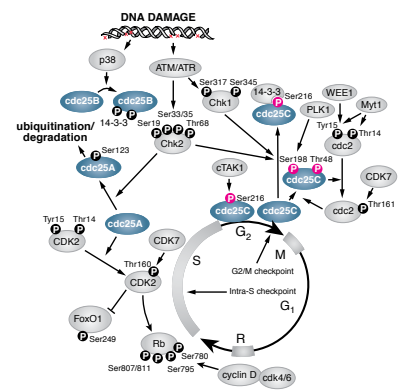
Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

*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
Immunoprecipitation 1:100
Immunohistochemistry (Paraffin) 1:50
Unmasking buffer: Citrate
Antibody diluent: SignalStain® Antibody Diluent #8112

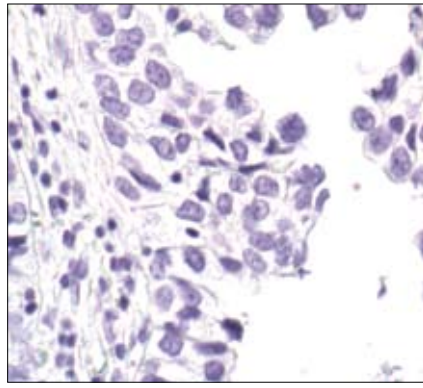
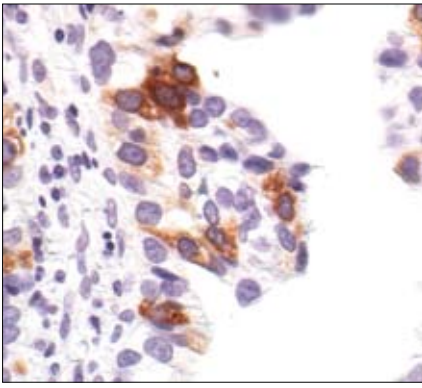
For application specific protocols please see the web page for this product at www.cellsignal.com.
Please visit www.cellsignal.com for a complete listing of recommended companion products.

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

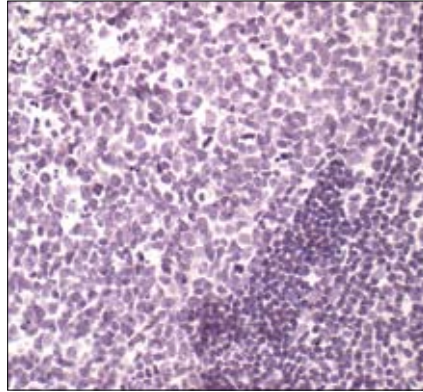
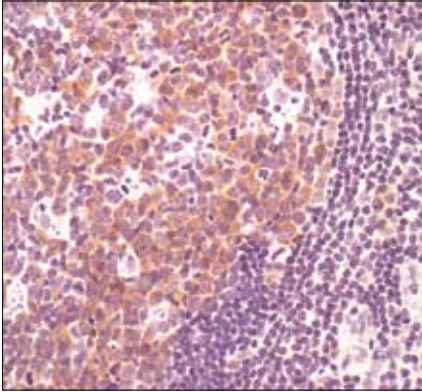


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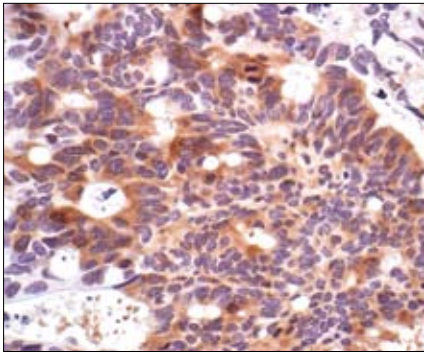
Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
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.



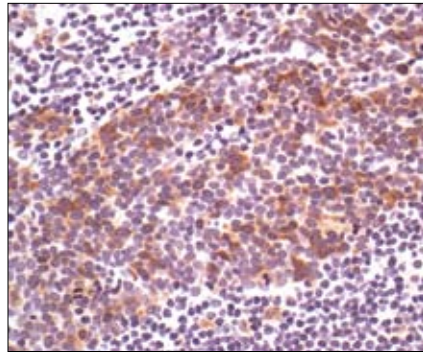
Immunohistochemical analysis of paraffin-embedded human lung carcinoma, untreated (left) or λ phosphatase-treated (right), using Phospho-cdc25C (Ser216) (63F9) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human lymph node, using Phospho-cdc25C (Ser216) (63F9) Rabbit mAb in the presence of control peptide (left) or Phospho-cdc25C (Ser216) Blocking Peptide (right).



Immunohistochemical analysis of paraffin-embedded human colon carcinoma, showing cytoplasmic localization, using Phospho-cdc25C (Ser216) (63F9) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma, using Phospho-cdc25C (Ser216) (63F9) Rabbit mAb.