

# cdc2 Antibody

✓ 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.	Source
W Endogenous	H, M, R	34 kDa	Rabbit**

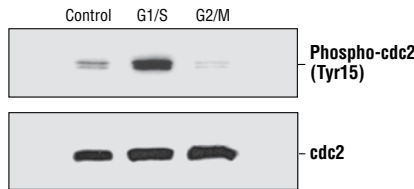
**Background:** The entry of eukaryotic cells into mitosis is regulated by cdc2 kinase activation, a process controlled at several steps including cyclin binding and phosphorylation of cdc2 at Thr161 (1). However, the critical regulatory step in activating cdc2 during progression into mitosis appears to be dephosphorylation of cdc2 at Tyr15 and Thr14 (2). Phosphorylation at Thr14 and Tyr15 resulting in inhibition of cdc2 can be carried out by Wee1 and Myt1 protein kinases (3,4). The cdc25 phosphatase may be responsible for removal of phosphates at Thr14 and Tyr15 and subsequent activation of cdc2 (1,5).

**Specificity/Sensitivity:** cdc2 Antibody detects endogenous levels of total cdc2 protein.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Tyr15 of human cdc2. Antibodies are purified by protein A and peptide affinity chromatography.

### Background References:

- (1) Atherton-Fessler, S. et al. (1994) *Mol. Biol. Cell.* 5, 989-1001.
- (2) Norbury, C. et al. (1991) *EMBO J.* 10, 3321-3329.
- (3) McGowan, C.H. and Russell, P. (1993) *EMBO J.* 12, 75-85.
- (4) Wells, N.J. et al. (1999) *J. Cell. Sci.* 112, 3361-3371.
- (5) Hunter, T. (1995) *Cell* 80, 225-236.



Western blot analysis of extracts from Saos cells, either untreated or treated with hydroxyurea or nocodazole, using Phospho-cdc2 (Tyr15) Antibody #9111 (upper) or cdc2 Antibody #9112 (lower).

Entrez-Gene ID # 983  
Swiss-Prot Acc. # P06493

**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.

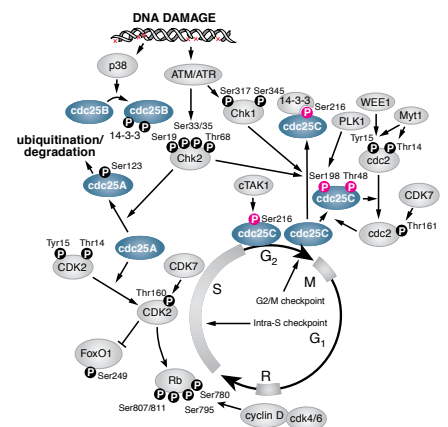
\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

### Recommended Antibody Dilutions:

Western blotting 1:1000

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

**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.