

Store at
-20°C

cdc2 Antibody

#77055

Cell Signaling
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orders@cellsignal.comEntrez-Gene ID #983
UniProt ID #P06493

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For Research Use Only. Not For Use In Diagnostic Procedures.**Applications**
W
Endogenous**Species Cross-Reactivity***
H, M, R, Mk**Molecular Wt.**
34 kDa**Source**
Rabbit**

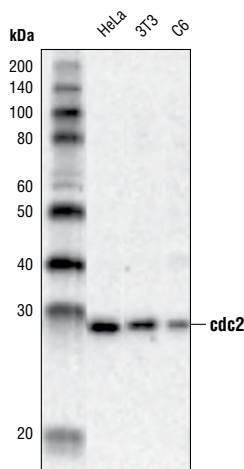
Background: The entry of eukaryotic cells into mitosis is regulated by cdc2 kinase activation, a process controlled at several steps including cyclin binding and phosphorylation of cdc2 at Thr161 (1). However, the critical regulatory step in activating cdc2 during progression into mitosis appears to be dephosphorylation of cdc2 at Thr14 and Tyr15 (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.

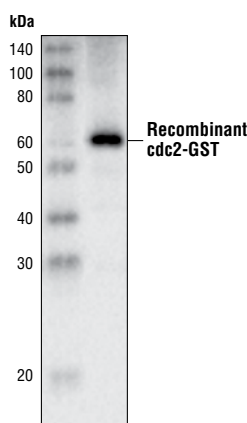
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp289 of human cdc2. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Atherton-Fessler, S. et al. (1994) *Mol Biol Cell* 5, 989–1001.
- (2) Norbury, C. et al. (1991) *EMBO J.* 10, 3321–9.
- (3) McGowan, C.H. and Russell, P. (1993) *EMBO J.* 12, 75–85.
- (4) Wells, N.J. et al. (1999) *J. Cell Sci.* 112 (Pt 19), 3361–71.
- (5) Hunter, T. (1995) *Cell* 80, 225–36.



Western blot analysis of extracts from HeLa, 3T3, and C6 cells using cdc2 Antibody.



Western blot analysis of human GST-tagged recombinant cdc2 protein using cdc2 Antibody.

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 product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

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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.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: 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.