

#2546 Store at -20°C

# CDK2 (78B2) 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.

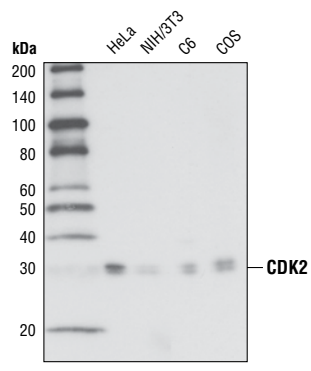
Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP, F Endogenous	H, M, R, Mk	33 kDa	Rabbit IgG**

**Background:** Cyclin-dependent kinase 2 (p33CDK2) is an important component of the cell cycle machinery. Like p34cdc2, kinase activity is regulated by association with a cyclin subunit, by its phosphorylation state and by association with a CDK inhibitor. Inhibitory phosphorylation occurs on Thr14 and Tyr15 (1). Inhibition of CDK2-cyclin complexes can also be attributed to association with p27Kip1 and p21Waf1/Cip1 (2). Activation of CDK2 complexes requires dephosphorylation of Thr14 and Tyr15 by cdc25 phosphatase and phosphorylation of Thr160 (3), which is mediated by CAK, a complex of CDK7 and cyclin H (4). CDK2/cyclin E kinase activity is important for the G1 to S transition and phosphorylation of the Rb protein. During S-phase, active CDK2/cyclin A complexes predominate and phosphorylate E2F and the active CDK2 complex persists in the nucleus throughout G2 (5).

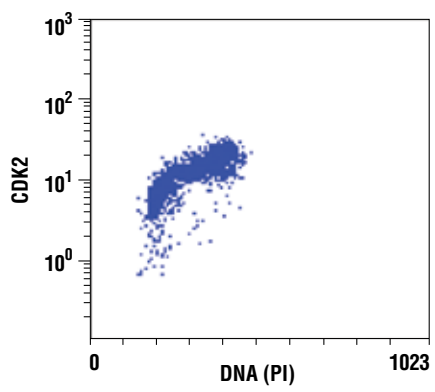
**Specificity/Sensitivity:** CDK2 (78B2) Rabbit mAb detects endogenous levels of total CDK2 protein. The antibody does not cross-react with other CDKs.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues of human CDK2.

- Background References:**
- (1) Morgan, D.O. (1995) *Nature* 374, 131–134.
  - (2) Poon, R.Y. et al. (1996) *J. Biol. Chem.* 271, 13283–13291.
  - (3) Gu, Y. et al. (1992) *EMBO J.* 11, 3995–4005.
  - (4) Fesquet, D. et al. (1993) *EMBO J.* 12, 3111–3121.
  - (5) Morgan, D.O. (1997) *Annu. Rev. Cell Dev. Biol.* 13, 261–291.



Western blot analysis of extracts from HeLa, NIH/3T3, C6 and COS cells, using CDK2 (78B2) Rabbit mAb.



Flow cytometric analysis of Jurkat cells, using CDK2 (78B2) Rabbit mAb versus propidium iodide (DNA content).

Entrez-Gene ID #1017  
Swiss-Prot Acc. #P24941

**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.

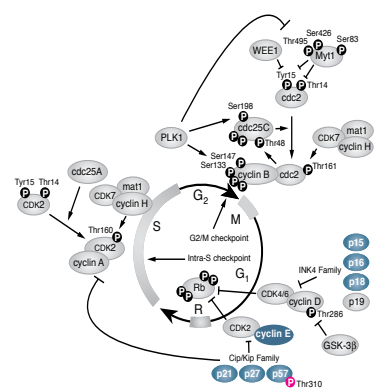
\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western blotting	1:1000
Immunoprecipitation	1:100
Flow Cytometry	1:50

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% 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.

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