

Store at
-20°C

CDK7 (M01) Mouse mAb

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#2916

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UniProt ID #P50613

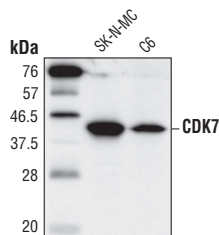
rev. 02/06/18

For Research Use Only. Not For Use In Diagnostic Procedures.**Applications**
W, IP, IHC-P
Endogenous**Species Cross-Reactivity***
H, R**Molecular Wt.**
40 kDa**Isotype**
Mouse IgG2b**

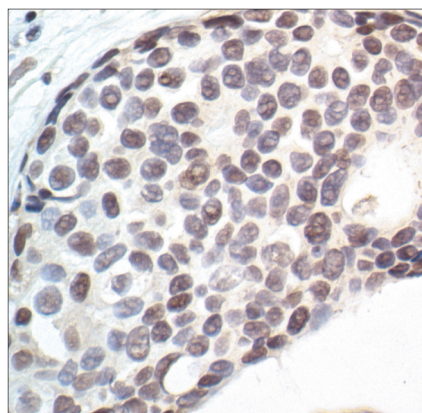
Background: CDK-activating kinase (CAK) is a complex of CDK7 and cyclin H. The complex is involved in cell cycle regulation by phosphorylating an activating residue in the T-loop domain of cdk's (1). Regulation of CAK activity is mediated by T-loop phosphorylation and by association with MAT1, both of which enhance its kinase activity toward the CTD of RNA polymerase II (2,3) and other substrates such as p53 (4). CAK is an essential component of the transcription complex TFIIF and may interact directly with TFIIF helicases (5).

Specificity/Sensitivity: CDK7 (M01) Mouse mAb detects endogenous levels of total CDK7 protein. The antibody does not cross-react with other CDKs.

Source/Purification: Monoclonal antibody is produced by immunizing animals with recombinant human CDK7. The epitope corresponds to a region surrounding Gln320 of human CDK7.



Western blot analysis of extracts from SK-N-MC and C6 cells, using CDK7 (M01) Mouse mAb.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma, showing nuclear localization, using CDK7 (M01) Mouse mAb.

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-mouse secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:2000
Immunoprecipitation	1:200
Immunohistochemistry (Paraffin)	1:1000

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

Background References:

- (1) Fisher, R.P. et al. (1994) *Cell* 78, 713-724.
- (2) Larochelle, S. et al. (2001) *EMBO J.* 16, 3749-3759.
- (3) Yankulov, K.Y. et al. (1997) *EMBO J.* 16, 1638-1646.
- (4) Ko, L.J. et al. (1997) *Mol. Cell. Biol.* 17, 7220-7229.
- (5) Rossignol, M. et al. (1997) *EMBO J.* 16, 1628-1637.

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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 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.