

#2916 Store at -20C

## CDK7 (MO1) Mouse mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IHC-P	H R	Endogenous	40	Mouse IgG2b	#P50613	1022

### Product Usage Information

#### Application

Western Blotting  
Immunoprecipitation  
Immunohistochemistry (Paraffin)

#### Dilution

1:2000  
1:200  
1:500

### 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.

### Specificity / Sensitivity

CDK7 (MO1) 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.

### 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).

### 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.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

### Applications Key

**WB:** Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)

### Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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