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# **Mouse Monoclonal Antibody to CDC2**

	Order II	nformation	
Catalog#	30040		
Size/Concentration	100µl	50µl	
Price(¥)	2180	1280	

### Description

The cell division control protein cdc2, also known as cyclin-dependent kinase 1 (Cdk1) or p34/cdk1, plays a key role in the control of the eukaryotic cell cycle, where it is required for entry into S-phase and mitosis. Cdc2 exists as a complex with both cyclin A and cyclin B. The best characterized of these associations is the Cdc2 p34 cyclin B complex, which is required for the G2 to M phase transition. Activation of Cdc2 is controlled at several steps including cyclin binding and phosphorylation of threonine 161. However, the critical regulatory step in activating cdc2 during progression into mitosis appears to be dephosphorylation of Tyr15 and Tyr14. Phosphorylation at Tyr15 dephosphorylation and activation of Cdc2 is carried out by WEE1 and MIK protein kinases while Tyr15 dephosphorylation and activation of Cdc2 is carried out by the cdc25 phosphatase. The isoform CDC2deltaT is found in breast cancer tissues. Furthermore, cdc2/Cdk1 is a key mediator of neuronal cell death in brain development and degeneration.

### **Specification**

Aliases : CDC2; CDC28A; P34CDC2; MGC111195; DKFZp686L20222; CDK1

Entrez GeneID : 983

Swissprot : P06493

clone : 8C5A7F10

WB Predicted band size : 34kDa

Host/Isotype : Mouse IgG1

 $\label{eq:storage:Storage:Storage:Storage:Avoid freeze/thaw cycles.$ 

Species Reactivity : Human

Immunogen : Purified recombinant fragment of CDC2 expressed in E. Coli. Formulation : Ascitic fluid containing 0.03% sodium azide.

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	Application	
WB	1/500 - 1/2000	
ICC	1/200 - 1/1000	
FCM	1/200 - 1/400	
ELISA	1/10000	

References

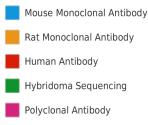
1. Mol Biol Cell. 2008 Aug;19(8):3536-43.

2. Eur J Cancer. 2009 May;45(8):1466-73.

#### Protocal

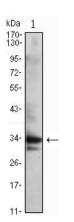
WB - www.promab.com/protocol/wb.html IHC - www.promab.com/protocol/ihc.html ICC - www.promab.com/protocol/icc.html HCM - www.promab.com/protocol/hcm.html **Antigen Sequence** is available upon request.



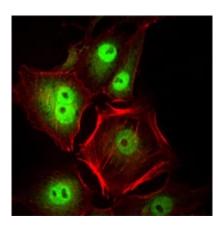




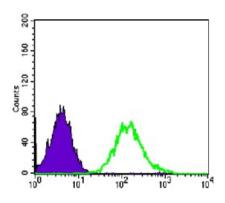
# **Mouse Monoclonal Antibody to CDC2**



Western blot analysis using CDC2 mouse mAb against Jurkat (1) cell lysate.



Immunofluorescence analysis of Hela cells using CDC2 mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow cytometric analysis of PC-2 cells using CDC2 mouse mAb (green) and negative control (purple).

