

Product Name: CDC2 Mouse Monoclonal Antibody
Catalog #: AMM80842



Summary

Production Name	CDC2 Mouse Monoclonal Antibody
Description	Mouse Monoclonal Antibody
Host	Mouse
Application	WB,ICC,FC,ELISA
Reactivity	Human

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG1
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Ascitic fluid containing 0.03% sodium azide.
Purification	Affinity Purification

Immunogen

Gene Name	CDC2
Alternative Names	CDC2; CDC28A; P34CDC2; MGC111195; DKFZp686L20222; CDK1
Gene ID	983.0
SwissProt ID	P06493.Purified recombinant fragment of CDC2 expressed in E. Coli.

Application

Dilution Ratio	WB:1:500-1:2000,ICC:1:200-1:1000,FC:1:200-1:400,ELISA:1:10000
Molecular Weight	34kDa

Background

The cell division control protein cdc2, also known as cyclin-dependent kinase 1 (Cdk1) or p34/cdk1, plays a key role in the

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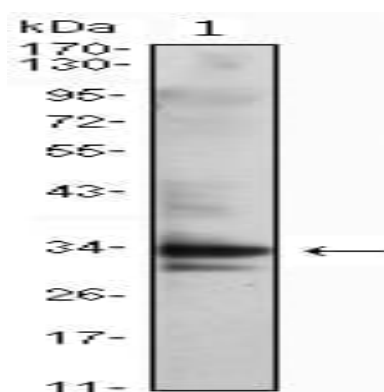


control of the eukaryotic cell cycle, where it is required for entry into S-phase and mitosis. Cdc2 exists as a complex with both cyclin A and cyclin B. The best characterized of these associations is the Cdc2 p34 cyclin B complex, which is required for the G2 to M phase transition. Activation of Cdc2 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 and inhibition 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.

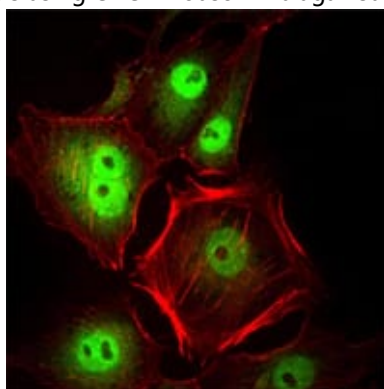
Research Area

Apoptosis

Image Data

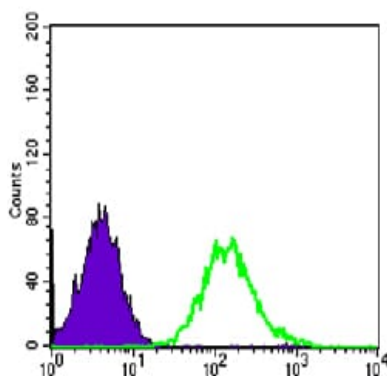


Western blot analysis using CDC2 mouse mAb against Jurkat (1) cell lysate.



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

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

Note

For research use only.