

Product Specification Sheet

Cat. #MA-30038

Mouse Monoclonal Anti Human cell division control protein cdc2.; Ascites

SIZE : 100 ul

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 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.

Source of Antigen and Antibodies

Antigen	Purified recombinant fragment of CDC2 expressed in E. Coli.
Ab Host/type	Balb/c mouse. IgG1 Ascetic fluid containing 0.05% sodium azide.
2-Ab	Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Isotype controls:

Catalog#	Product Description
20102-101	Mouse IgG1 isotype control, purified
20102-101-APC	Mouse IgG1-APC conjugate (isotype)
20102-101-B	Mouse IgG1-Biotin conjugate (isotype)
20102-101-F	Mouse IgG1-FITC conjugate (isotype)
20102-101-FP	Mouse IgG1-FITC-PE conjugate (isotype)
20102-101-HP	Mouse IgG1-HRP conjugate (isotype)
20102-101-PC5	Mouse IgG1-PE-Cy5 conjugate (isotype)
20102-101-PE	Mouse IgG1-PE conjugate (isotype control)

Suggested Dilutions:

Western blot	1:500 – 1:2000
Immunohistochemistry (IHC):	1:200 – 1:1000
Immunocytochemistry (ICC):	N/A
Flow cytometry (FCM):	N/A
ELISA	1:5000 – 1:100000

Form: Antibodies are supplied in PBS, pH 7.5, 0.05% azide and 0.1% BSA in liquid (0.5-1 mg/ml) or lyophilized in the same buffer. Reconstitute powder in 100 ul water or PBS. Store at -20°C or below is suitable size Aliquots.

Shipping: 4°C for solutions and room temp for powder.

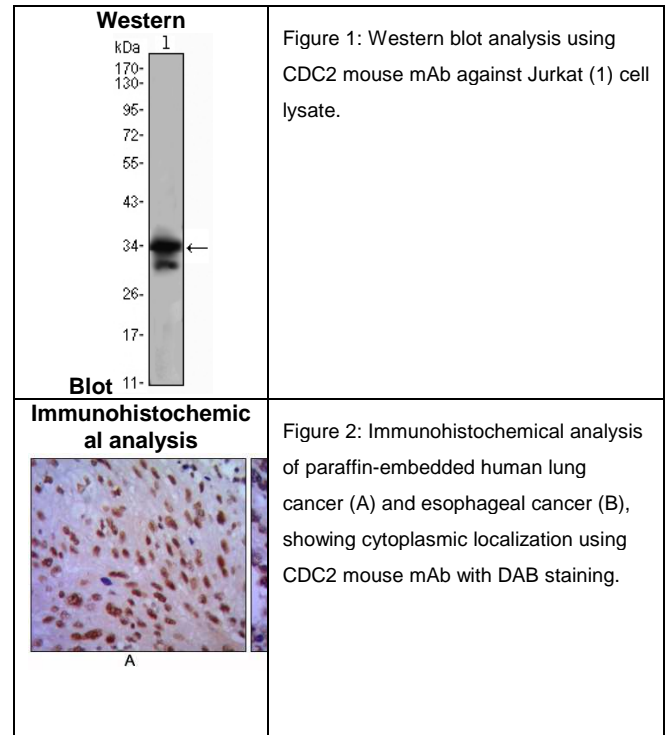


Figure 1: Western blot analysis using CDC2 mouse mAb against Jurkat (1) cell lysate.

Figure 2: Immunohistochemical analysis of paraffin-embedded human lung cancer (A) and esophageal cancer (B), showing cytoplasmic localization using CDC2 mouse mAb with DAB staining.

References:

Mol Biol Cell. 2008; 19(8):3536-43. Eur J Cancer. 2009; 45(8):1466-73.

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MA-30037

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