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CDC2 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant CDC2.
Catalog # AT1457a

Product Information

Application	WB, IHC, IF, E
Primary Accession	P06493
Other Accession	BC014563
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 Kappa
Clone Names	1A4-1A9
Calculated MW	34095

Additional Information

Gene ID	983
Other Names	Cyclin-dependent kinase 1, CDK1, Cell division control protein 2 homolog, Cell division protein kinase 1, p34 protein kinase, CDK1, CDC2, CDC28A, CDKN1, P34CDC2
Target/Specificity	CDC2 (AAH14563, 1 a.a. ~ 297 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 IF~~1:50~200 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	CDC2 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

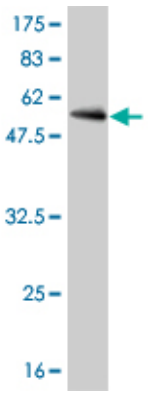
Background

The protein encoded by this gene is a member of the Ser/Thr protein kinase family. This protein is a catalytic subunit of the highly conserved protein kinase complex known as M-phase promoting factor (MPF), which is essential for G1/S and G2/M phase transitions of eukaryotic cell cycle. Mitotic cyclins stably associate with this protein and function as regulatory subunits. The kinase activity of this protein is controlled by cyclin accumulation and destruction through the cell cycle. The phosphorylation and dephosphorylation of this protein also play important regulatory roles in cell cycle control. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

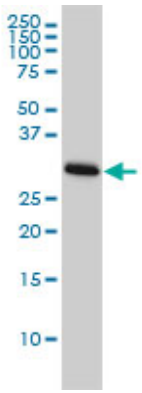
References

Phosphorylation of Mcl-1 by CDK1-cyclin B1 initiates its Cdc20-dependent destruction during mitotic arrest. Harley ME, et al. EMBO J, 2010 Jul 21. PMID 20526282.Centrosome-related genes, genetic variation, and risk of breast cancer. Olson JE, et al. Breast Cancer Res Treat, 2010 May 28. PMID 20508983.Cdk1 activity is required for mitotic activation of aurora A during G2/M transition of human cells. Van Horn RD, et al. J Biol Chem, 2010 Jul 9. PMID 20444701.Phosphorylation of mixed lineage leukemia 5 by CDC2 affects its cellular distribution and is required for mitotic entry. Liu J, et al. J Biol Chem, 2010 Jul 2. PMID 20439461.Progressive activation of CyclinB1-Cdk1 coordinates entry to mitosis. Gavet O, et al. Dev Cell, 2010 Apr 20. PMID 20412769.

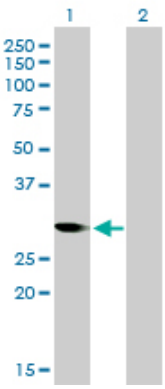
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (58.41 KDa) .



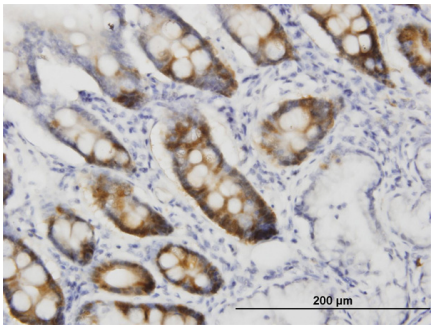
CDC2 monoclonal antibody (M01), clone 1A4-1A9 Western Blot analysis of CDC2 expression in Hela ((Cat # AT1457a)

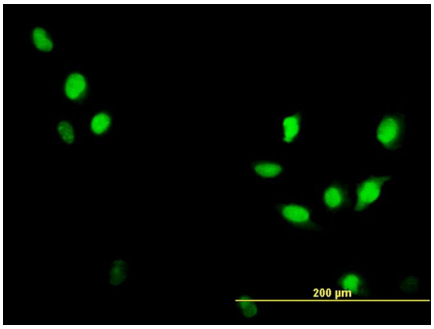


Western Blot analysis of CDC2 expression in transfected 293T cell line by CDC2 monoclonal antibody (M01), clone 1A4-1A9.

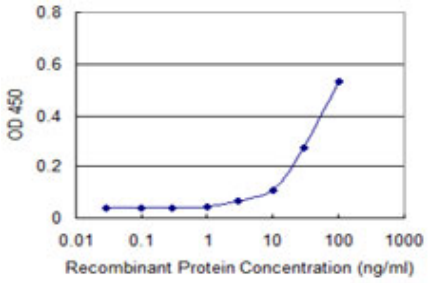
Lane 1: CDC2 transfected lysate(34.1 KDa).
Lane 2: Non-transfected lysate.

Immunoperoxidase of monoclonal antibody to CDC2 on formalin-fixed paraffin-embedded human small Intestine. [antibody concentration 0.3 ug/ml]





Immunofluorescence of monoclonal antibody to CDC2 on HeLa cell. [antibody concentration 10 ug/ml]



Detection limit for recombinant GST tagged CDC2 is approximately 30ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.