BT LAB
Bioassay Technology Laboratory
Optimize Your Research

CDC2 Monoclonal Antibody

Description

Product type	Antibody
Code	BT-MCA4124
Host	Mouse
Isotype	Mouse IgG1
Size	100μL, 50μL
Immunogen	Purified recombinant fragment of CDC2 expressed in E. Coli.
Mol wt	34kDa
Species reactivity	Human
Clonality	Monoclonal
Recommended application	WB,IHC
Concentration	N/A
Full name	N/A
Synonyms	CDC2;CDC28A;P34CDC2;MGC111195;DKFZp686L20222;CDK1

This product is for research use only, not for use in human, therapeutic or diagnostic procedure.

Background

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.

Recommended Dilution

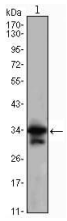
WB: 1:500 - 1:2000

IHC-p: 1:200 - 1:1000

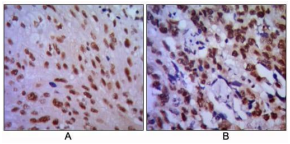
ELISA: 1:10000

Not yet tested in other applications.

Images



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



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

Storage

Store at 4°C short term. Aliquot and store at -20°C long term.

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