Datasheet for ABIN969033

anti-CDK1 antibody

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Overview

Quantity:	100 µL
Target:	CDK1
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CDK1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

Product Details

Purpose:	CDC2 Antibody
Immunogen:	Purified recombinant fragment of CDC2 expressed in E. Coli.
Clone:	8C5A6
Isotype:	IgG1
Purification:	Ascitic fluid

Target Details

Target:	CDK1
Alternative Name:	CDC2 (CDK1 Products)
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

Target Details

	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.
Molecular Weight:	34 kDa
Gene ID:	983
UniProt:	P06493
Pathways:	Cell Division Cycle, Fc-epsilon Receptor Signaling Pathway, Neurotrophin Signaling Pathway, Activation of Innate immune Response, Mitotic G1-G1/S Phases, DNA Replication, M Phase, Toll-Like Receptors Cascades, Synthesis of DNA

Application Details

Application Notes:	ELISA: 1/10000
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Ascitic fluid containing 0.03 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Publications

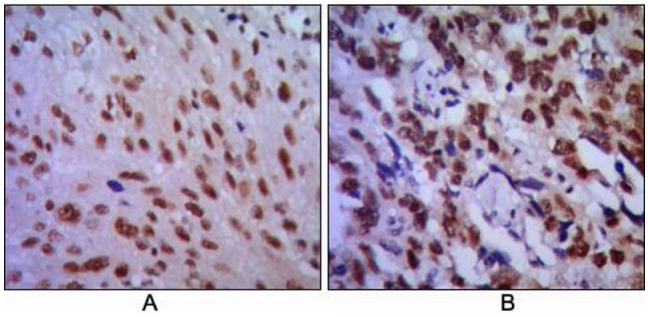
Product cited in:	Meyer, Merkel, Brückl, Schellerer, Schildberg, Campean, Hohenberger, Croner: "Cdc2 as

Publications

prognostic marker in stage UICC II colon carcinomas." in: **European journal of cancer (Oxford, England : 1990)**, Vol. 45, Issue 8, pp. 1466-73, (2009) (PubMed).

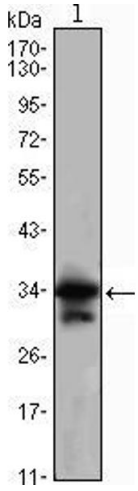
Tang, Wu, Guo, Hansen, Perry, Freel, Nutt, Jackson, Kornbluth: "Cdc2 and Mos regulate Emi2 stability to promote the meiosis I-meiosis II transition." in: **Molecular biology of the cell**, Vol. 19, Issue 8, pp. 3536-43, (2008) (PubMed).

Images



Immunohistochemistry

Image 1. Immunohistochemical analysis of paraffin-embedded human lung cancer (A) and esophageal cancer (B), showing cytoplasmic localization using CDC2 mouse mAb with DAB staining.



Western Blotting

Image 2. Western blot analysis using CDC2 mouse mAb against Jurkat (1) cell lysate.