

Datasheet for ABIN5557431
anti-CDK1 antibody



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3 Images

Overview

Quantity:	100 µL
Target:	CDK1
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Monoclonal
Conjugate:	This CDK1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (Cultured Cells) (IF (cc))

Product Details

Immunogen:	Recombinant human CDK1 protein, full length.
Clone:	3-00E-12
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Purified by Protein A.

Target Details

Target:	CDK1
Alternative Name:	CDK1 (CDK1 Products)
Background:	Synonyms: P34CDC2, Cdc 2, CDK 1, CDK1, Cell division control protein 2, Cell division control

Target Details

protein 2 homolog, Cell division cycle 2 G1 to S and G2 to M, Cell Division Cycle 2 Protein.

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.

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:	WB 1:300-5000 IHC-P 1:200-400 IF(ICC) 1:50-200
Restrictions:	For Research Use only

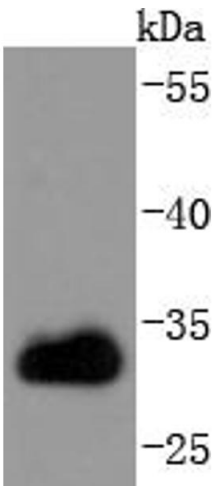
Handling

Format:	Liquid
Concentration:	1 µg/µL
Buffer:	Aqueous buffered solution containing 1xTBS (pH 7.4), 1 % BSA, 40 %Glycerol and 0.05 % Sodium Azide.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

Handling

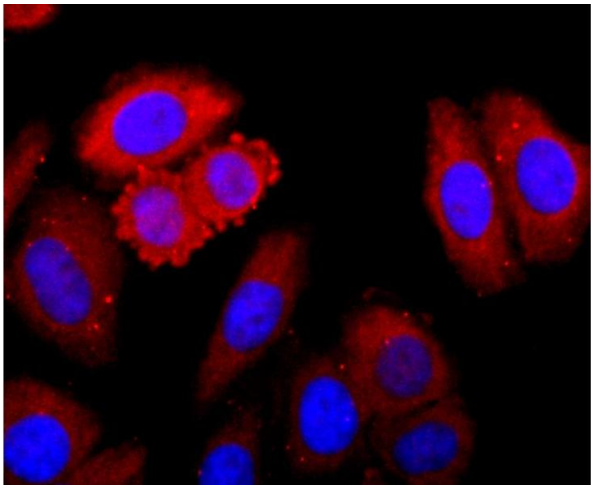
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

Images



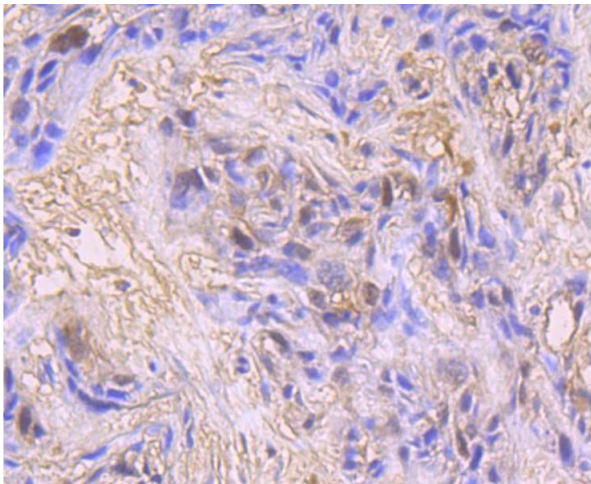
Western Blotting

Image 1. Jurkat cell lysates, probed with CDK1 (3E12) Monoclonal Antibody at 1:1000 overnight at 4°C. Followed by a conjugated secondary antibody.



Immunofluorescence (Cultured Cells)

Image 2. HepG2 cells were fixed in paraformaldehyde, permeabilized with 0.25% Triton X100/PBS and stained with CDK1 (3E12) Monoclonal Antibody at 1:200 and incubated overnight at 4C, followed by secondary antibody incubation, DAPI staining of the nuclei and detection.



Immunohistochemistry (Paraffin-embedded Sections)

Image 3. Paraformaldehyde-fixed, paraffin embedded Human breast carcinoma, Antigen retrieval by boiling in sodium citrate buffer (pH6) for 15min, Block endogenous peroxidase by 3% hydrogen peroxide for 30 minutes, Blocking buffer at 37°C for 20min, Antibody incubation with CDK1 (3E12) Monoclonal Antibody at 1:50 overnight at 4°C, followed by a conjugated secondary and DAB staining.