# **Anti-Cdk2 Antibody [10-D7]**

### M1403-3



**Product Type:** Mouse monoclonal IgG2b, primary antibodies

Species reactivity:Human, Mouse, RatApplications:WB, IF-Cell, IHC-P, FC

Molecular Wt: Predicted band size: 34 kDa

Clone number: 10-D7

Description: Cyclin-dependent kinase 2 (p33CDK2) is an important component of the cell cycle

machinery. It acts at the G1-S transition to promote the E2F transcriptional program and the initiation of DNA synthesis, and modulates G2 progression; controls the timing of entry into mitosis/meiosis by controlling the subsequent activation of cyclin B/CDK1 by phosphorylation, and coordinates the activation of cyclin B/CDK1 at the centrosome and in the nucleus. Inhibition of CDK2-cyclin complexes can also be attributed to association with

p27 Kip1 and p21 Waf1/Cip1.

Immunogen: Synthetic peptide within Human Cdk2 aa 249-298 / 298.

Positive control: A549, F9, PC12, NCCIT

Subcellular location: Cytoplasm, nucleus

Database links: SwissProt: P24941 Human

**Recommended Dilutions:** 

**WB** 1:2000 **IF-Cell** 1:500

Storage Buffer: 1\*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at  $4^{\circ}$ C. Store at  $+4^{\circ}$ C short term (1-2 weeks). It is recommended to aliquot into

single-use upon delivery. Store at -20 °C long term.

**Purity:** Protein G affinity purified.

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#### **Images**

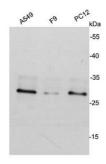


Fig1: Western blot analysis on different cell lysates using anti-Cdk2 mouse mAb.

Fig2: Western blot analysis of Cdk2 on different lysates with Mouse anti-Cdk2 antibody (M1403-3) at 1/1,000 dilution.

Lane 1: Hela-si NT cell lysate Lane 2: Hela-si Cdk2 cell lysate

Lysates/proteins at 10 µg/Lane.

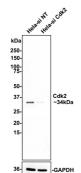
Predicted band size: 34 kDa Observed band size: 34 kDa

Exposure time: 1 minute;

ECL: merk

4-20% SDS-PAGE gel.

M1403-3 was shown to specifically react with Cdk2 in Hela-si NT cells. Weakened band was observed when Hela-si Cdk2 sample was tested. Hela-si NT and Hela-si Cdk2 samples were subjected to SDS-PAGE. Proteins were transferred to a PVDF membrane and blocked with 5% NFDM in TBST for 1 hour at room temperature. The primary antibody (M1403-3, 1/1,000) and Loading control antibody (Rabbit anti-GAPDH, ET1601-4, 1/10,000) were used in 5% BSA at room temperature for 2 hours. Goat Anti-mouse IgG-HRP Secondary Antibody (HA1006) at 1:100,000 dilution was used for 1 hour at room temperature.



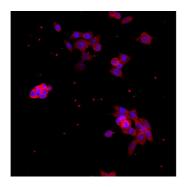


Fig3: ICC staining Cdk2 in NCCIT cells (red). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS and counterstained with DAPI in order to highlight the nucleus (blue).

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Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

#### **Background References**

- 1. "Human Speedy: a novel cell cycle regulator that enhances proliferation through activation of Cdk2." Porter L.A., Dellinger R.W., Tynan J.A., Barnes E.A., Kong M., Lenormand J.-L., Donoghue D.J. J. Cell Biol. 157:357-366(2002)
- 2. "Cyclin A/cdk2 coordinates centrosomal and nuclear mitotic events." De Boer L., Oakes V., Beamish H., Giles N., Stevens F., Somodevilla-Torres M., Desouza C., Gabrielli B. Oncogene 27:4261-4268(2008)