Anti-Cdk2 Antibody

R1309-3

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P, FC
Molecular Wt:	Predicted band size: 34 kDa

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 cell lysate, F9 cell lysate, PC-12 cell lysate, Mouse thymus tissue lysate, Human liver tissue lysate, A549, human tonsil tissue, human breast cancer tissue, Hela.

Subcellular location: Cytoplasm, Nucleus, Cytoskeleton, Endosome.

Database links: SwissProt: P24941 Human | P97377 Mouse | Q63699 Rat

Recommended Dilutions:

WB	1:500-1:1,000
IF-Cell	1:50-1:200
IHC-P	1:200
FC	1:50-1:100

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

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.

Purity: Immunogen affinity purified.

Images

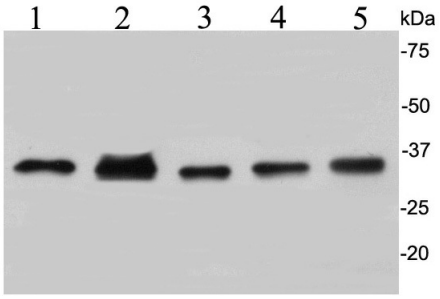

Fig1: Western blot analysis of Cdk2 on different cell lysates using anti-Cdk2 antibody at 1/1,000 dilution.
Positive control:
Lane 1: A549 cell lysate
Lane 2: F9 cell lysate
Lane 3: PC-12 cell lysate
Lane 4: Mouse thymus tissue lysate
Lane 5: Human liver tissue lysate

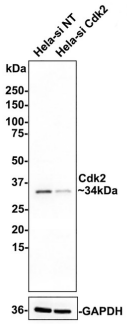

Fig2: Western blot analysis of Cdk2 on different lysates with Rabbit anti-Cdk2 antibody (R1309-3) at 1/1,000 dilution.

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.

R1309-3 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 (R1309-3, 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-rabbit IgG-HRP Secondary Antibody (HA1001) at 1:100,000 dilution was used for 1 hour at room temperature.

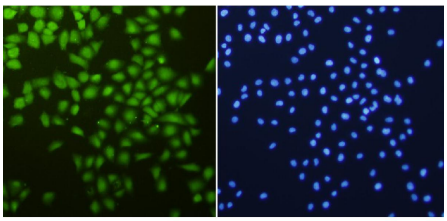

Fig3: ICC staining Cdk2 in A549 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

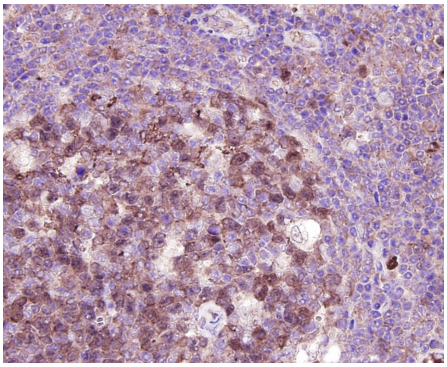

Fig4: Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-Cdk2 antibody. Counter stained with hematoxylin.

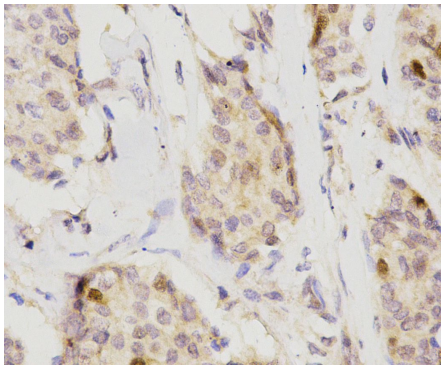

Fig5: Immunohistochemical analysis of paraffin-embedded human breast cancer tissue using anti-Cdk2 antibody. Counter stained with hematoxylin.

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

Background References

1. Porter L A et al. Human Speedy: a novel cell cycle regulator that enhances proliferation through activation of Cdk2. J Cell Biol 157:357-366 (2002).
2. De Boer L et al. Cyclin A/cdk2 coordinates centrosomal and nuclear mitotic events. Oncogene 27:4261-4268 (2008).