

Anti-CDk1 Antibody

ER31213



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: Cdk1 is a small protein (approximately 34 kilodaltons), and is highly conserved. Cdk1 is comprised mostly by the bare protein kinase motif, which other protein kinases share. Cdk1, like other kinases, contains a cleft in which ATP fits. When bound to its cyclin partners, Cdk1 phosphorylation leads to cell cycle progression. Given its essential role in cell cycle progression, Cdk1 is highly regulated. Most obviously, Cdk1 is regulated by its binding with its cyclin partners. Cyclin binding alters access to the active site of Cdk1, allowing for Cdk1 activity; furthermore, cyclins impart specificity to Cdk1 activity. At least some cyclins contain a hydrophobic patch which may directly interact with substrates, conferring target specificity. Furthermore, cyclins can target Cdk1 to particular subcellular locations.

Immunogen: Synthetic peptide within N-terminal human CDK1.

Positive control: MCF-7 cell lysate, Jurkat cell lysate, PC12 cell lysate, HepG2 cell lysate, HeLa cell lysate, NIH/3T3 cell lysate, Mouse liver tissue lysate, SKBR3 cell lysate, HeLa, HepG2, MCF-7, rat spleen tissue, human tonsil tissue, human breast cancer tissue, mouse spleen tissue, HeLa.

Subcellular location: Cytoplasm, nucleus, Cytoskeleton, Mitochondrion.

Database links: SwissProt: P06493 Human

Recommended Dilutions:

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

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

Storage Instruction: Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

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Images

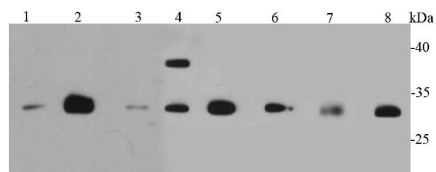


Fig1: Western blot analysis of CDK1 on different lysates using anti-CDK1 antibody at 1/500 dilution.

Positive control:

- Lane 1: MCF-7 cell lysate
- Lane 2: Jurkat cell lysate
- Lane 3: PC12 cell lysate
- Lane 4: HepG2 cell lysate
- Lane 5: Hela cell lysate
- Lane 6: NIH/3T3 cell lysate
- Lane 7: Mouse liver tissue lysate
- Lane 8: SKBR3 cell lysate

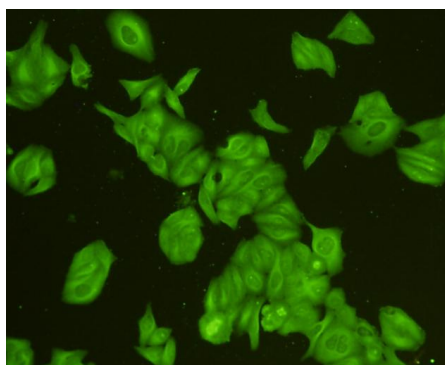


Fig2: ICC staining CDK1 in Hela cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

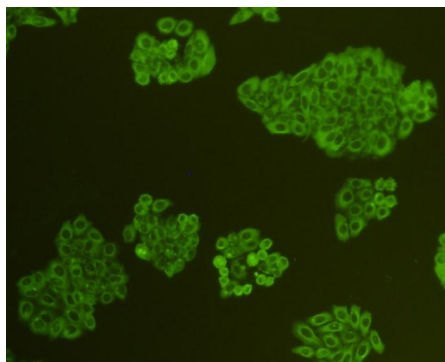


Fig3: ICC staining CDK1 in HepG2 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

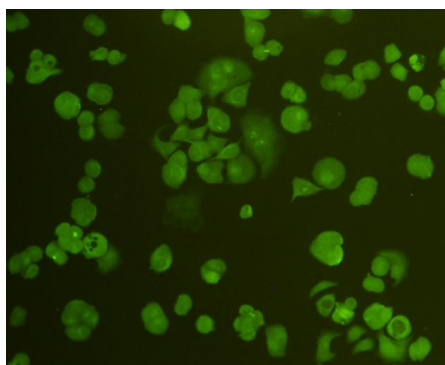


Fig4: ICC staining CDK1 in MCF-7 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

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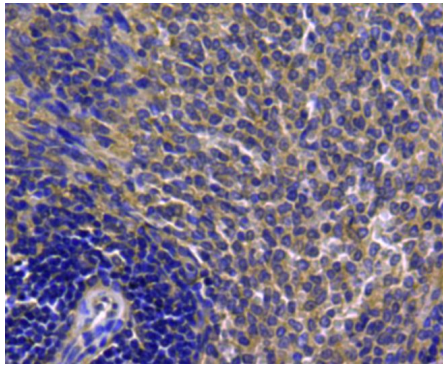


Fig5: Immunohistochemical analysis of paraffin-embedded rat spleen tissue using anti-CDk1 antibody. Counter stained with hematoxylin.

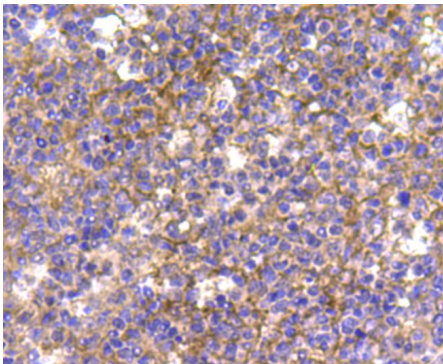


Fig6: Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-CDk1 antibody. Counter stained with hematoxylin

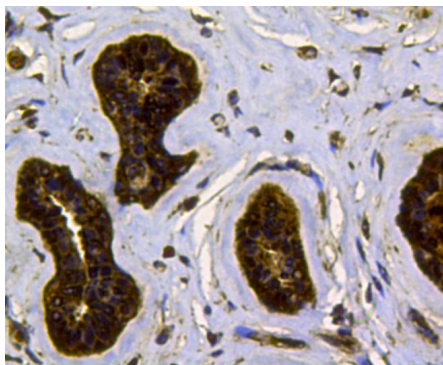


Fig7: Immunohistochemical analysis of paraffin-embedded human breast cancer tissue using anti-CDk1 antibody. Counter stained with hematoxylin

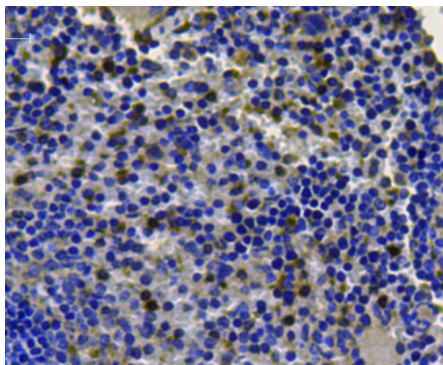


Fig8: Immunohistochemical analysis of paraffin-embedded mouse spleen tissue using anti-CDk1 antibody. Counter stained with hematoxylin.

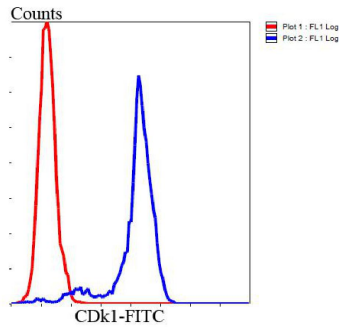


Fig9: Flow cytometric analysis of HeLa cells with CDK1 antibody at 1/100 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Goat anti rabbit IgG (FITC) was used as the secondary antibody.

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

Background References

1. "Sequential phosphorylation of Nedd1 by Cdk1 and Plk1 is required for targeting of the gammaTuRC to the centrosome." Zhang X., Chen Q., Feng J., Hou J., Yang F., Liu J., Jiang Q., Zhang C. J. Cell Sci. 122:2240-2251(2009)
2. "Cdc25 phosphatases are required for timely assembly of CDK1-cyclin B at the G2/M transition." Timofeev O., Cizmecioglu O., Settele F., Kempf T., Hoffmann I. J. Biol. Chem. 285:16978-16990(2010)

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