

## Cdk2 Polyclonal Antibody

<b>Catalog No :</b>	YT0832
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	Cdk2/Cdc2
<b>Fields :</b>	>>FoxO signaling pathway;>>Cell cycle;>>Oocyte meiosis;>>p53 signaling pathway;>>PI3K-Akt signaling pathway;>>Cellular senescence;>>Progesterone-mediated oocyte maturation;>>Cushing syndrome;>>Hepatitis C;>>Hepatitis B;>>Measles;>>Human papillomavirus infection;>>Human T-cell leukemia virus 1 infection;>>Epstein-Barr virus infection;>>Pathways in cancer;>>Viral carcinogenesis;>>Prostate cancer;>>Small cell lung cancer;>>Gastric cancer
<b>Gene Name :</b>	CDK2
<b>Protein Name :</b>	Cyclin-dependent kinase 2
<b>Human Gene Id :</b>	1017
<b>Human Swiss Prot No :</b>	P24941
<b>Mouse Gene Id :</b>	12566
<b>Mouse Swiss Prot No :</b>	P97377
<b>Rat Swiss Prot No :</b>	Q63699
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human CDK2. AA range:231-280
<b>Specificity :</b>	Cdk2 Polyclonal Antibody detects endogenous levels of Cdk2 protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG

**Dilution :** WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:20000. Not yet tested in other applications.

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**Purification :** The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

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**Concentration :** 1 mg/ml

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**Storage Stability :** -15°C to -25°C/1 year(Do not lower than -25°C)

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**Observed Band :** 32kD

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**Cell Pathway :** Cell\_Cycle\_G1S;Cell\_Cycle\_G2M\_DNA;Oocyte meiosis;p53;Progesterone-mediated oocyte maturation;Pathways in cancer;Prostate cancer;Small cell lung cancer;

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**Background :** cyclin dependent kinase 2(CDK2) Homo sapiens This gene encodes a member of a family of serine/threonine protein kinases that participate in cell cycle regulation. The encoded protein is the catalytic subunit of the cyclin-dependent protein kinase complex, which regulates progression through the cell cycle. Activity of this protein is especially critical during the G1 to S phase transition. This protein associates with and regulated by other subunits of the complex including cyclin A or E, CDK inhibitor p21Cip1 (CDKN1A), and p27Kip1 (CDKN1B). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2014],

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**Function :** catalytic activity:ATP + a protein = ADP + a phosphoprotein.,enzyme regulation:Phosphorylation at Thr-14 or Tyr-15 inactivates the enzyme, while phosphorylation at Thr-160 activates it.,function:Involved in the control of the cell cycle. Interacts with cyclins A, B1, B3, D, or E. Activity of CDK2 is maximal during S phase and G2.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Found in a complex with CABLES1, CCNA1 and CCNE1. Interacts with CABLES1 (By similarity). Interacts with UHRF2. Part of a complex consisting of UHRF2, CDK2 and CCNE1. Interacts with the Speedy/Ringo proteins SPDYA and SPDYC. Found in a complex with both SPDYA and CDKN1B/KIP1.,

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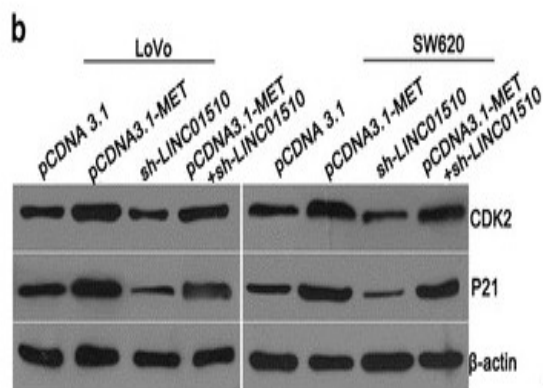
**Subcellular Location :** Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Nucleus, Cajal body. Cytoplasm. Endosome. Localized at the centrosomes in late G2 phase after separation of the centrosomes but before the start of prophase. Nuclear-cytoplasmic trafficking is mediated during the inhibition by 1,25-(OH)(2)D(3).

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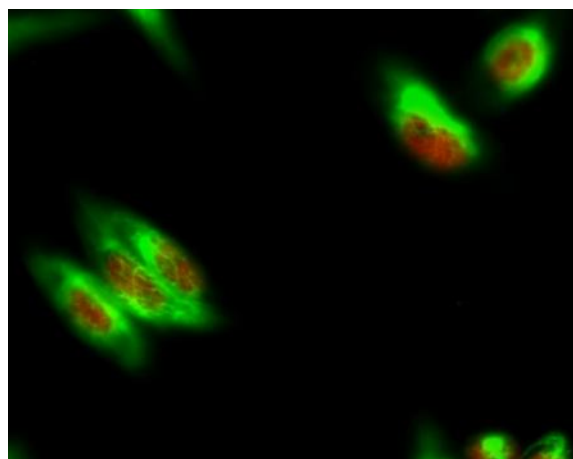
**Expression :** Epithelium,Lung,Placenta,

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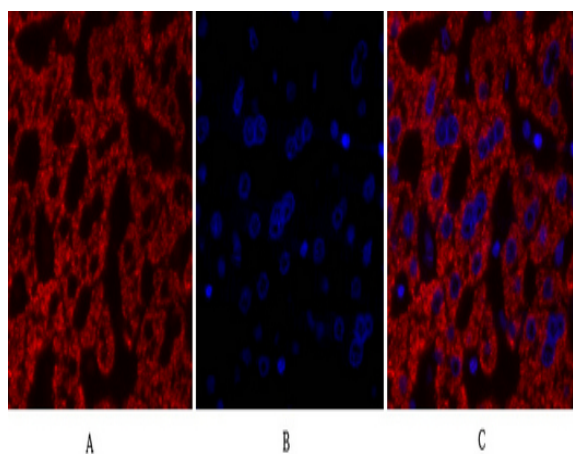
## Products Images



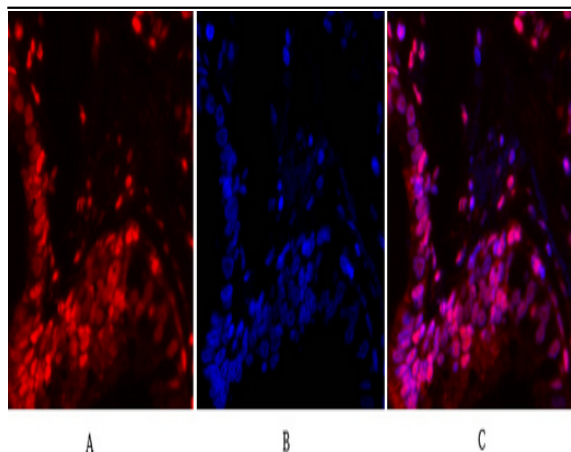
Gen, Chaoqun, et al. "Long noncoding RNA LINC01510 promotes the growth of colorectal cancer cells by modulating MET expression." *Cancer cell international* 18.1 (2018): 45.



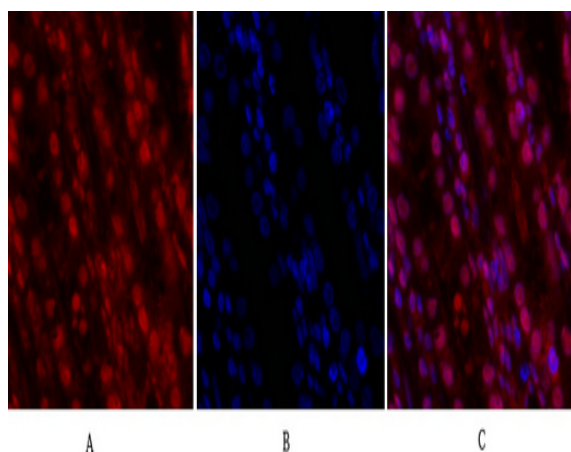
Immunofluorescence analysis of HeLa cell. 1, Cdk2 Polyclonal Antibody (red) was diluted at 1:200 (4° overnight). NSE Monoclonal Antibody (13E2) (green) was diluted at 1:200 (4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog: RS3611 was diluted at 1:1000 (room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog: RS3208 was diluted at 1:1000 (room temperature, 50min).



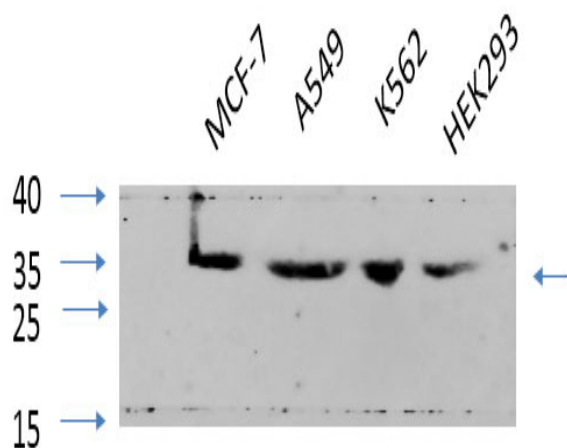
Immunofluorescence analysis of human-liver tissue. 1, Cdk2 Polyclonal Antibody (red) was diluted at 1:200 (4° C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



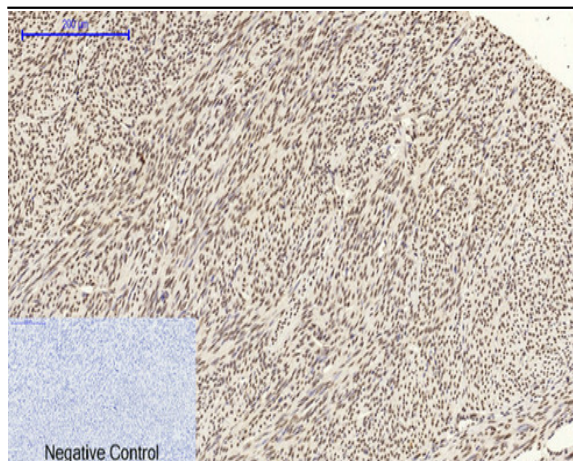
Immunofluorescence analysis of human-lung tissue. 1, Cdk2 Polyclonal Antibody (red) was diluted at 1:200 (4 °C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



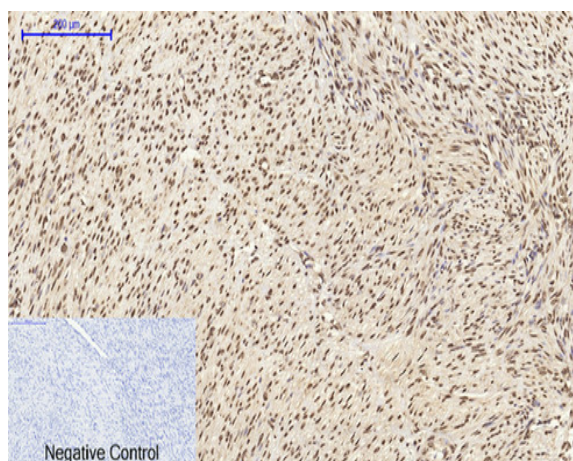
Immunofluorescence analysis of human-stomach tissue. 1, Cdk2 Polyclonal Antibody (red) was diluted at 1:200 (4 °C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



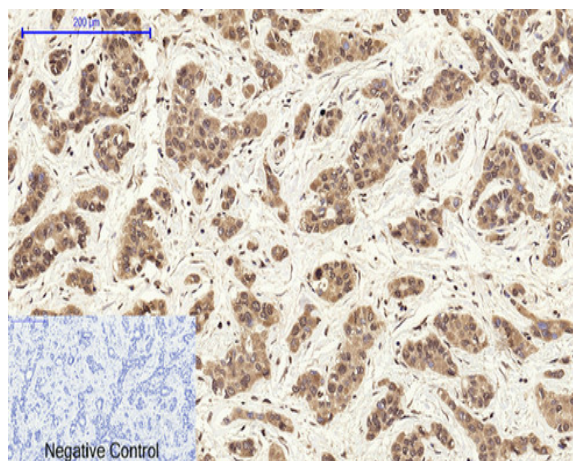
Western Blot analysis of various cells using primary antibody diluted at 1:1000 (4 °C overnight). Secondary antibody: Goat Anti-rabbit IgG IRDye 800 (diluted at 1:5000, 25 °C, 1 hour). Cell lysate was extracted by Minute™ Plasma Membrane Protein Isolation and Cell Fractionation Kit (SM-005, Inventibiotec, MN, USA).



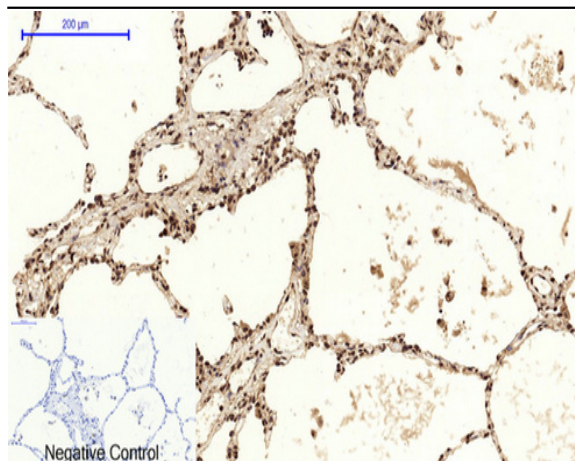
Immunohistochemical analysis of paraffin-embedded Human-uterus tissue. 1, Cdk2 Polyclonal Antibody was diluted at 1:200 (4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98 °C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.



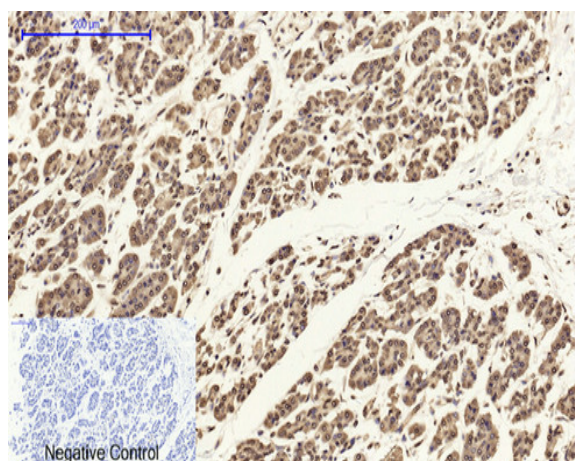
Immunohistochemical analysis of paraffin-embedded Human-uterus-cancer tissue. 1, Cdk2 Polyclonal Antibody was diluted at 1:200 (4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98 °C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.



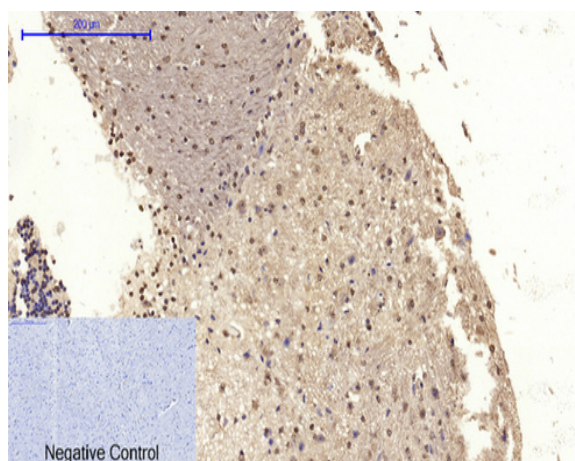
Immunohistochemical analysis of paraffin-embedded Human-liver-cancer tissue. 1, Cdk2 Polyclonal Antibody was diluted at 1:200 (4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98 °C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.



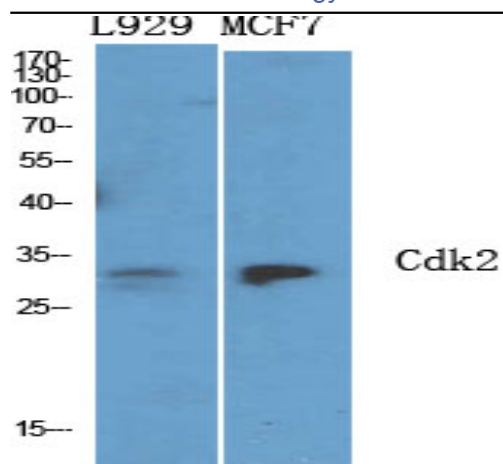
Immunohistochemical analysis of paraffin-embedded Human lung tissue. 1, Cdk2 Polyclonal Antibody was diluted at 1:200 (4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98 °C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.



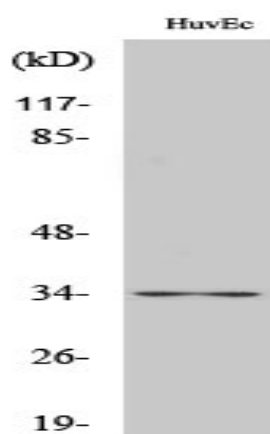
Immunohistochemical analysis of paraffin-embedded Human stomach-cancer tissue. 1, Cdk2 Polyclonal Antibody was diluted at 1:200 (4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98 °C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.



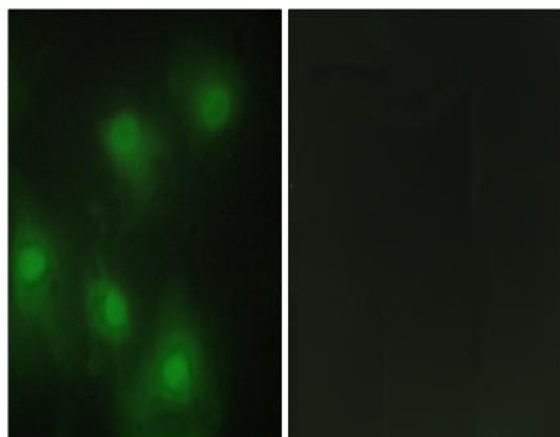
Immunohistochemical analysis of paraffin-embedded Mouse brain tissue. 1, Cdk2 Polyclonal Antibody was diluted at 1:200 (4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98 °C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.



Western Blot analysis of various cells using Cdk2 Polyclonal Antibody diluted at 1:2000



Western Blot analysis of Jurkat cells using Cdk2 Polyclonal Antibody diluted at 1:2000



Immunofluorescence analysis of HeLa cells, using CDK2 Antibody. The picture on the right is blocked with the synthesized peptide.