

Rabbit Anti-CDK6 antibody

SL0568R

Product Name CDK6

Chinese Name 周期素依赖性激酶 6 抗体

Alias CDK 6; CDK6; Cell division protein kinase 6; Crk 2; Crk2; Cyclin dependent kinase 6; Cyclin-dependent kinase 6; MGC59692; p40; PLSTIRE; Serine/threonine-protein kinase PLSTIRE; STQTL11; CDK6_HUMAN; PLSTIRE; Serine/threonine protein kinase PLSTIRE.

Research Area Tumour Cell biology Chromatin and nuclear signals Signal transduction Cyclin Kinases and Phosphatases

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human, Mouse, Rat, (predicted: Dog, Cow, Horse,)

Applications WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug/test
(Paraffin sections need antigen repair)

not yet tested in other applications.

optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 37kDa

Cellular localization The nucleus cytoplasmic

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human CDK6: 21-110/326

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed

[PubMed](#)

The protein encoded by this gene is a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are highly similar to the gene products of *Saccharomyces cerevisiae cdc28*, and *Schizosaccharomyces pombe cdc2*, and are known to be important regulators of cell cycle progression. This kinase is a catalytic subunit of the protein kinase complex that is important for cell cycle G1 phase progression and G1/S transition. The activity of this kinase first appears in mid-G1 phase, which is controlled by the regulatory subunits including D-type cyclins and members of INK4 family of CDK inhibitors. This kinase, as well as CDK4, has been shown to phosphorylate, and thus regulate the activity of, tumor suppressor protein Rb.

Function:

Serine/threonine-protein kinase involved in the control of the cell cycle and differentiation; promotes G1/S transition. Phosphorylates pRB/RB1 and NPM1. Interacts with D-type G1 cyclins during interphase at G1 to form a pRB/RB1 kinase and controls the entrance into the cell cycle. Involved in initiation and maintenance of cell cycle exit during cell differentiation; prevents cell proliferation and regulates negatively cell differentiation, but is required for the proliferation of specific cell types (e.g. erythroid and hematopoietic cells). Essential for cell proliferation within the dentate gyrus of the hippocampus and the subventricular zone of the lateral ventricles. Required during thymocyte development. Promotes the production of newborn neurons, probably by modulating G1 length. Promotes, at least in astrocytes, changes in patterns of gene expression, changes in the actin cytoskeleton including loss of stress fibers, and enhanced motility during cell differentiation. Prevents myeloid differentiation by interfering with RUNX1 and reducing its transcription transactivation activity, but promotes proliferation of normal myeloid progenitors. Delays senescence. Promotes the proliferation of beta-cells in pancreatic islets of Langerhans.

Product Detail

Subunit:

Interaction with D-type G1 cyclins. Cyclin binding promotes enzyme activation by phosphorylation at Thr-177. Binds to RUNX1, CDKN2D, FBXO7 and CDKN2C/p18-INK4c. Forms a cytoplasmic complex with Hsp90/HSP90AB1 and CDC37. FBXO7-binding promotes D-type cyclin binding. Interacts with Kaposi's sarcoma herpesvirus (KSHV) V-cyclin and herpesvirus saimiri (V-cyclin/ECLF2); the CDK6/V-cyclin complex phosphorylates NPM1 and thus lead to viral reactivation by reducing viral LANA levels.

Subcellular Location:

Cytoplasm. Nucleus. Cell projection, ruffle. Note=Localized to the ruffling edge of spreading fibroblasts. Kinase activity only in nucleus.

Tissue Specificity:

Expressed ubiquitously. Accumulates in squamous cell carcinomas, proliferating hematopoietic progenitor cells, beta-cells of pancreatic islets of Langerhans, and

neuroblastomas. Reduced levels in differentiating cells.

Post-translational modifications:

Thr-177 phosphorylation and Tyr-24 dephosphorylation promotes kinase activity.

Similarity:

Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.

Contains 1 protein kinase domain.

SWISS:

Q00534

Gene ID:

1021

Database links:

[Entrez Gene: 1021](#) Human

[Entrez Gene: 12571](#) Mouse

[Entrez Gene: 114483](#) Rat

[Omim: 603368](#) Human

[SwissProt: Q00534](#) Human

[SwissProt: Q64261](#) Mouse

[Unigene: 119882](#) Human

[Unigene: 31672](#) Mouse

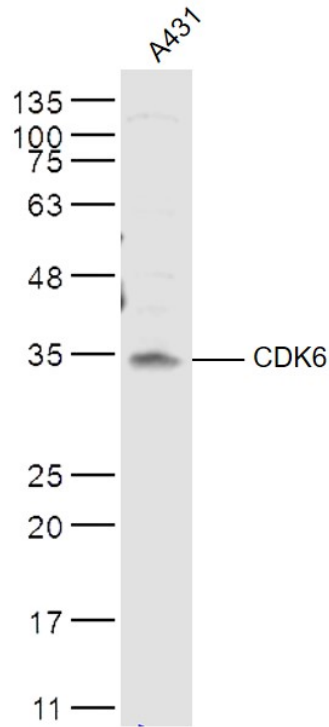
[Unigene: 389058](#) Mouse

[Unigene: 399714](#) Mouse

[Unigene: 162731](#) Rat

Cyclin Dependent Kinase 6(CDK6)—周期素依赖性激酶 6,是细胞周期在 G1 期向 S 期进展的关键因素之一.

**Product
Picture**



Sample:

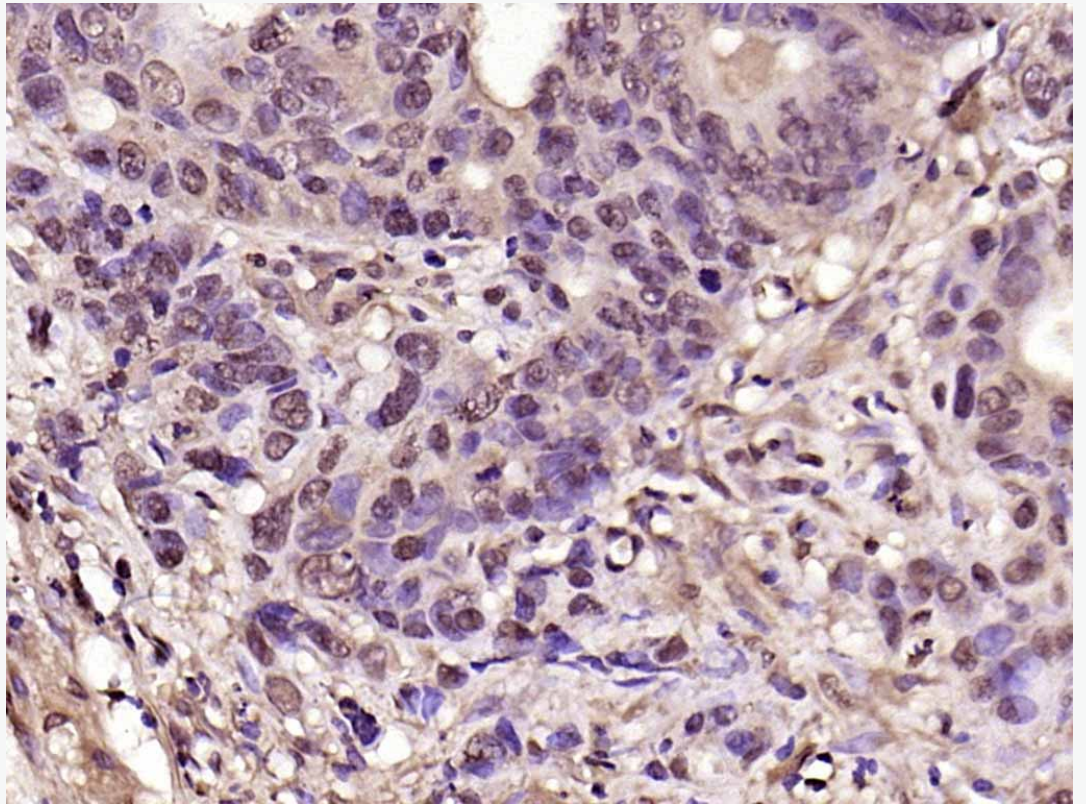
A431(Human) Cell Lysate at 30 ug

Primary: Anti-CDK6 (SL0568R) at 1/500 dilution

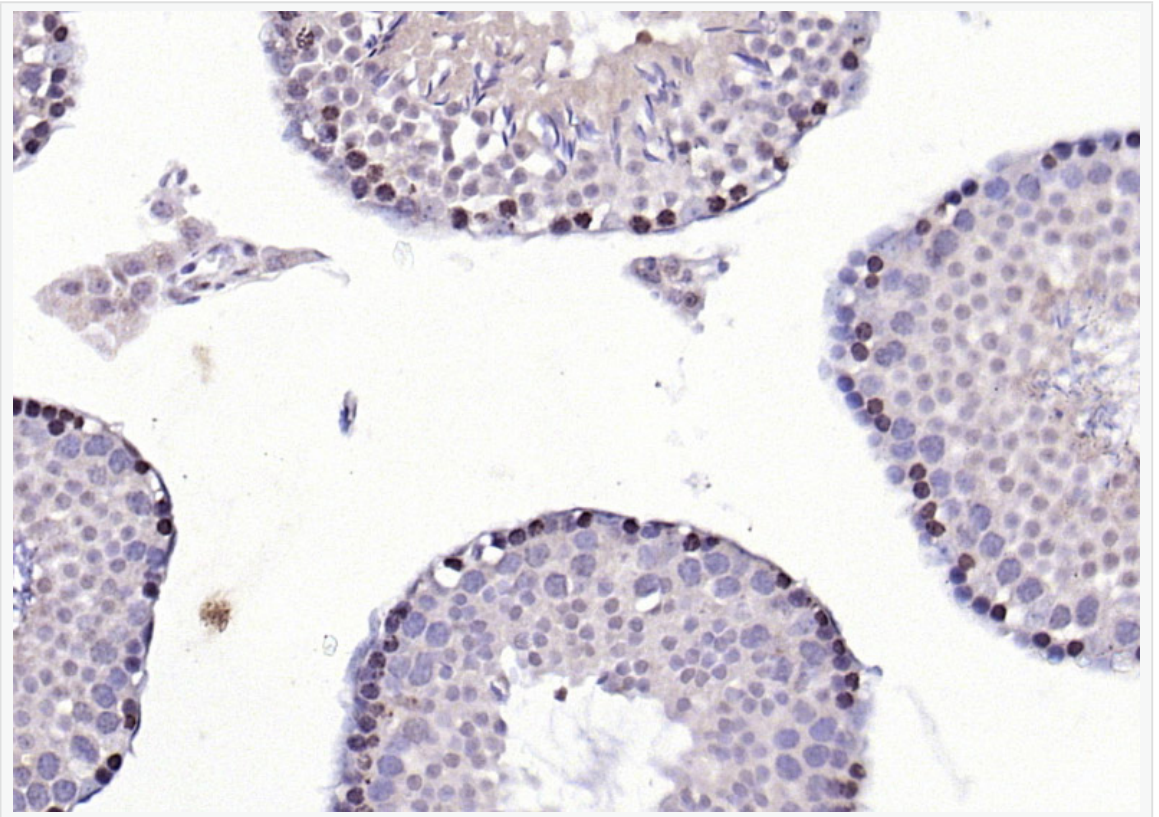
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 37 kD

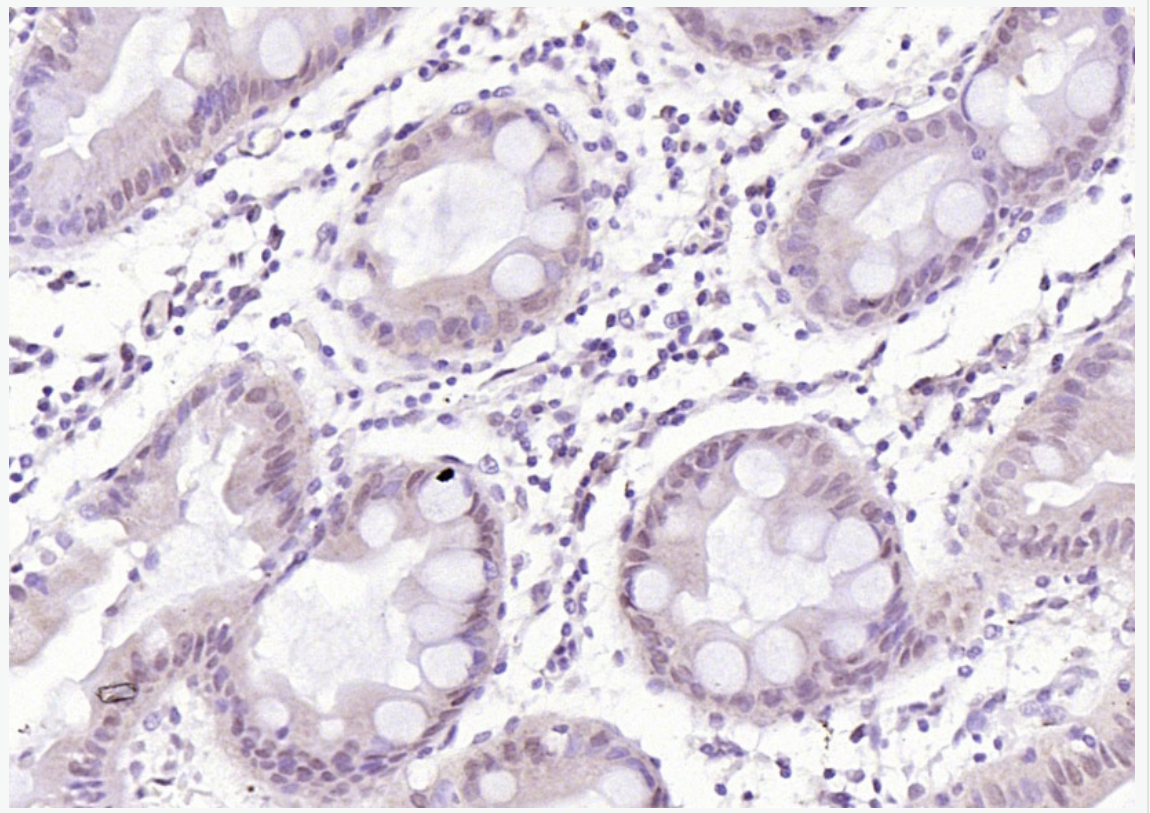
Observed band size: 35 kD



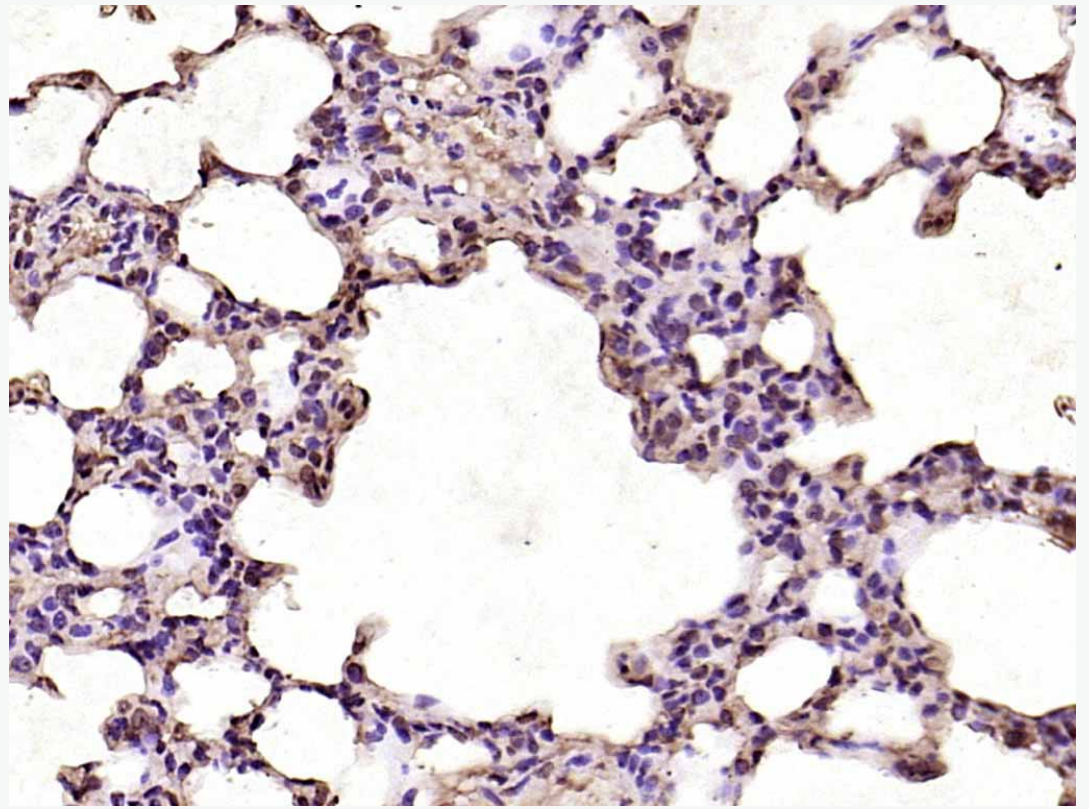
Paraformaldehyde-fixed, paraffin embedded (human rectal carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CDK6) Polyclonal Antibody, Unconjugated (SL0568R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



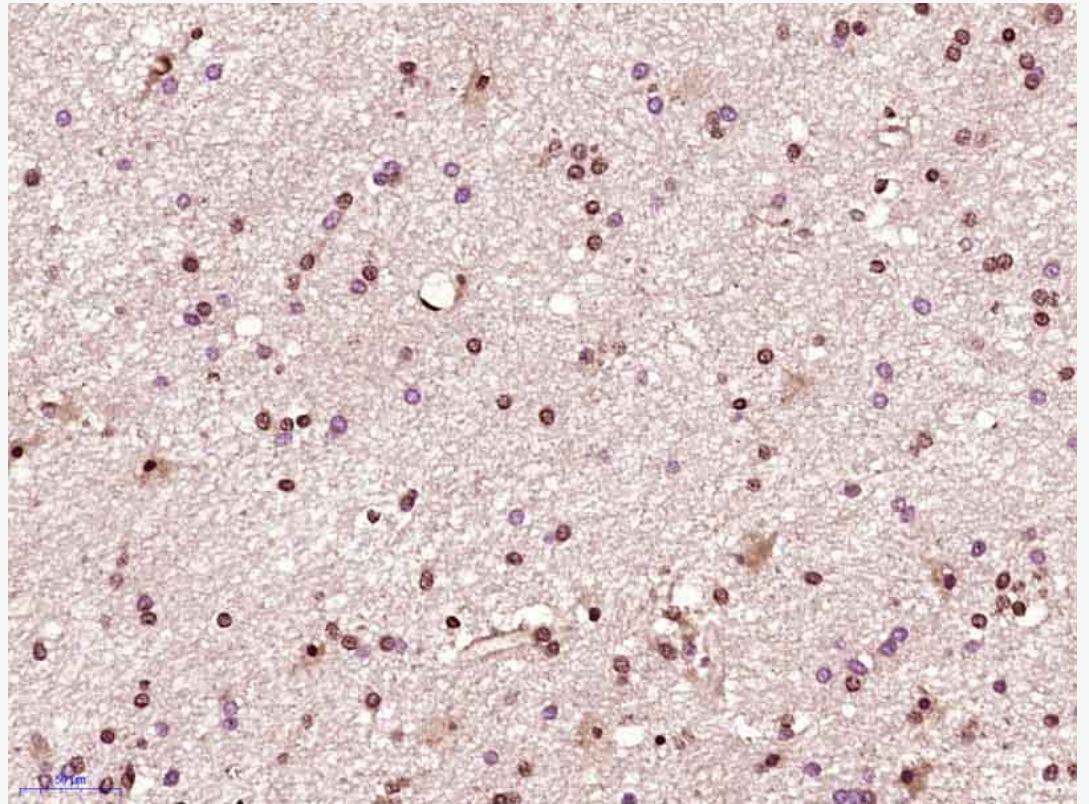
Paraformaldehyde-fixed, paraffin embedded (mouse testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CDK6) Polyclonal Antibody, Unconjugated (SL0568R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



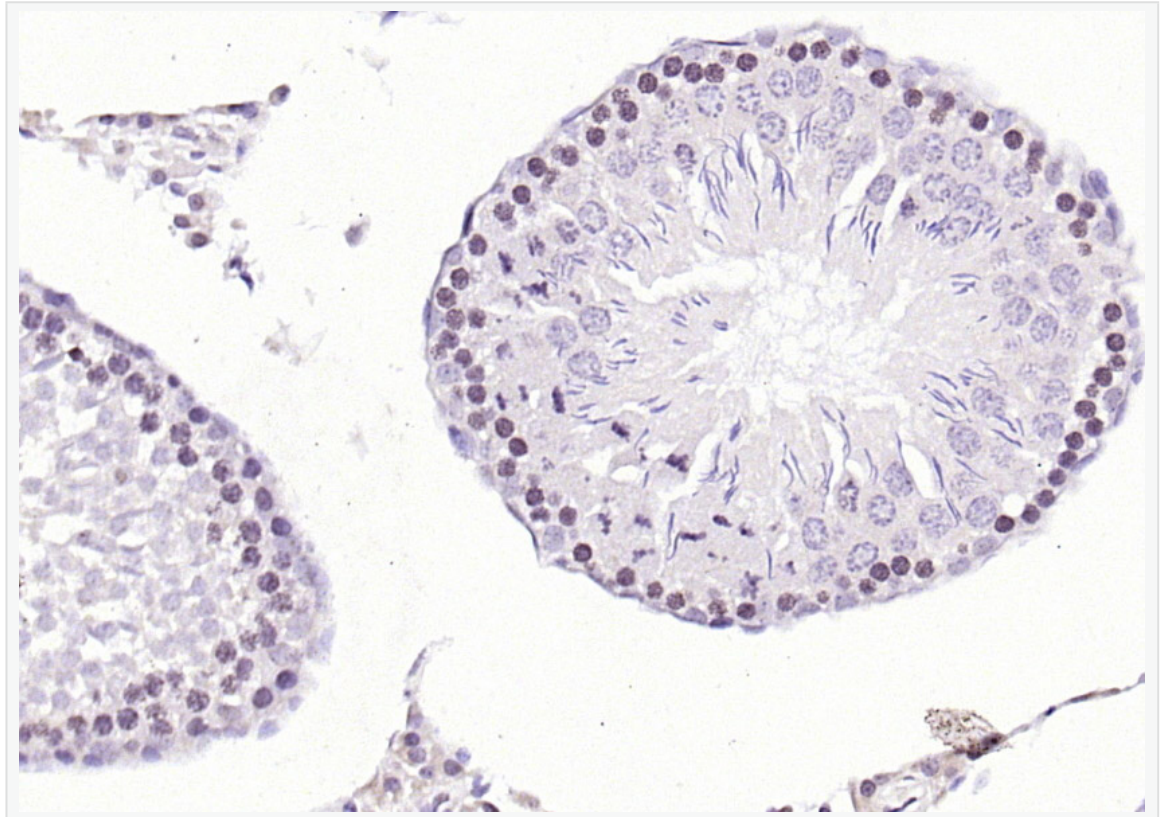
Paraformaldehyde-fixed, paraffin embedded (human gastric carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CDK6) Polyclonal Antibody, Unconjugated (SL0568R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



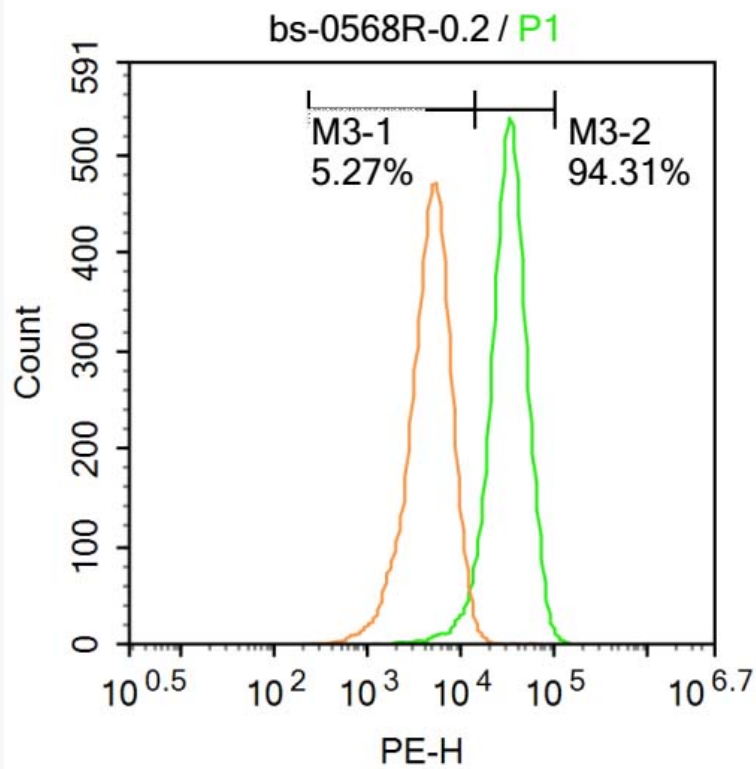
Paraformaldehyde-fixed, paraffin embedded (rat lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CDK6) Polyclonal Antibody, Unconjugated (SL0568R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Human brain glioma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CDK6) Polyclonal Antibody, Unconjugated (SL0568R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CDK6) Polyclonal Antibody, Unconjugated (SL0568R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control:Molt-4.

Primary Antibody (green line): Rabbit Anti-CDK6 antibody (SL0568R)

Dilution: 1 μ g /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-AF647

Dilution: 1 μ g /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20°C. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at at room



temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.