



Rabbit Anti-phospho-CDKN1B (Thr187) antibody

SL5229R

Product Name:	phospho-CDKN1B (Thr187)
Chinese Name:	磷酸化P27抗体/周期素依赖激酶抑制剂抗体
Alias:	p27 KIP 1 (phospho T187); p-p27 KIP 1 (phospho T187); p27Kip1(Phospho-Thr187); p-p27Kip1(Thr187); p-p27Kip1(187); CDN1B_HUMAN; AA408329; AI843786; Cdk1b; CDKN 1B; CDKN 4; CDKN1B; CDKN1B; CDKN4; CDKN4; Cyclin Dependent Kinase Inhibitor 1B; Cyclin Dependent Kinase Inhibitor 1B; Cyclin dependent kinase inhibitor p27; Cyclin dependent kinase inhibitor p27; Cyclin-dependent kinase inhibitor 1B (p27, Kip1); Cyclin-dependent kinase inhibitor 1B; Cyclin-dependent kinase inhibitor p27; Cyclin-dependent kinase inhibitor p27 Kip1; KIP 1; KIP1; MEN1B; MEN4; OTTHUMP00000195098; OTTHUMP00000195099; p27; p27 Kip1; P27-like cyclin-dependent kinase inhibitor; P27KIP1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Cow,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=0.2µg/TestICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	22kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human CDKN1B around the phosphorylation site of Thr187:EQ(p-T)PK
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year

	when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	<p>This gene encodes a cyclin-dependent kinase inhibitor, which shares a limited similarity with CDK inhibitor CDKN1A/p21. The encoded protein binds to and prevents the activation of cyclin E-CDK2 or cyclin D-CDK4 complexes, and thus controls the cell cycle progression at G1. The degradation of this protein, which is triggered by its CDK dependent phosphorylation and subsequent ubiquitination by SCF complexes, is required for the cellular transition from quiescence to the proliferative state. [provided by RefSeq, Jul 2008]</p> <p>Function: Important regulator of cell cycle progression. Involved in G1 arrest. Potent inhibitor of cyclin E- and cyclin A-CDK2 complexes. Forms a complex with cyclin type D-CDK4 complexes and is involved in the assembly, stability, and modulation of CCND1-CDK4 complex activation. Acts either as an inhibitor or an activator of cyclin type D-CDK4 complexes depending on its phosphorylation state and/or stoichiometry.</p> <p>Subunit: Forms a ternary complex with CCNE1/CDK2/CDKN1B.</p> <p>Subcellular Location: Nucleus. Cytoplasm. Endosome. Note=Nuclear and cytoplasmic in quiescent cells. AKT-or RSK-mediated phosphorylation on Thr-198, binds 14-3-3, translocates to the cytoplasm and promotes cell cycle progression. Mitogen-activated UHMK1 phosphorylation on Ser-10 also results in translocation to the cytoplasm and cell cycle progression. Phosphorylation on Ser-10 facilitates nuclear export. Translocates to the nucleus on phosphorylation of Tyr-88 and Tyr-89. Colocalizes at the endosome with SNX6; this leads to lysosomal degradation.</p> <p>Tissue Specificity: Expressed in all tissues tested. Highest levels in skeletal muscle, lowest in liver and kidney.</p> <p>Post-translational modifications: Phosphorylated; phosphorylation occurs on serine, threonine and tyrosine residues. Phosphorylation on Ser-10 is the major site of phosphorylation in resting cells, takes place at the G(0)-G(1) phase and leads to protein stability. Phosphorylation on other sites is greatly enhanced by mitogens, growth factors, cMYC and in certain cancer cell lines. The phosphorylated form found in the cytoplasm is inactivate. Phosphorylation on Thr-198 is required for interaction with 14-3-3 proteins. Phosphorylation on Thr-187, by CDK2 leads to protein ubiquitination and proteasomal degradation. Tyrosine phosphorylation promotes this process. Phosphorylation by PKB/AKT1 can be suppressed by LY294002, an inhibitor of the catalytic subunit of PI3K. Phosphorylation on Tyr-88 and Tyr-89 has no effect on binding CDK2, but is required for binding CDK4. Dephosphorylated on tyrosine residues by G-CSF.</p>

Ubiquitinated; in the cytoplasm by the KPC complex (composed of RNF123/KPC1 and UBAC1/KPC2) and, in the nucleus, by SCF(SKP2). The latter requires prior phosphorylation on Thr-187. Ubiquitinated; by a TRIM21-containing SCF(SKP2)-like complex; leads to its degradation.

DISEASE:

Defects in CDKN1B are the cause of multiple endocrine neoplasia type 4 (MEN4) [MIM:610755]. Multiple endocrine neoplasia (MEN) syndromes are inherited cancer syndromes of the thyroid. MEN4 is a MEN-like syndrome with a phenotypic overlap of both MEN1 and MEN2.

Similarity:

Belongs to the CDI family.

SWISS:

P46527

Gene ID:

1027

Database links:

[Entrez Gene: 1027](#)Human

[Entrez Gene: 12576](#)Mouse

[Entrez Gene: 83571](#)Rat

[Omim: 600778](#)Human

[SwissProt: P46527](#)Human

[SwissProt: P46414](#)Mouse

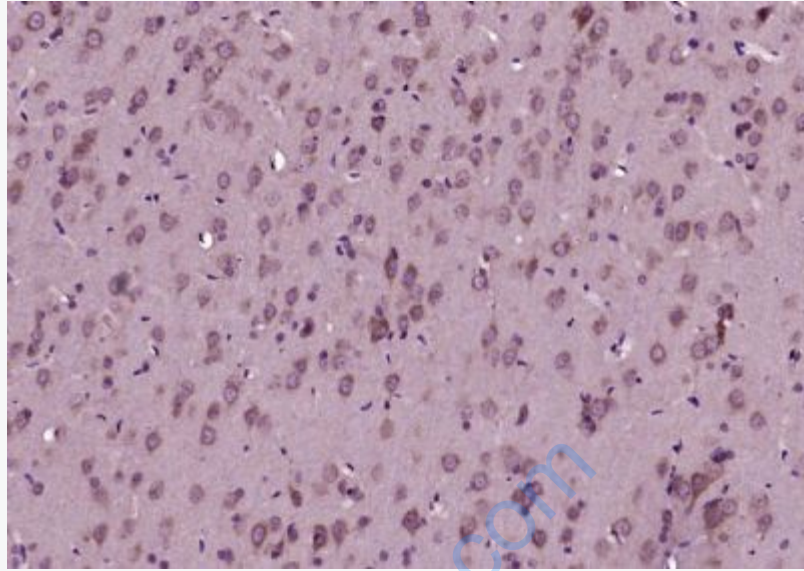
[Unigene: 238990](#)Human

[Unigene: 2958](#)Mouse

Important Note:

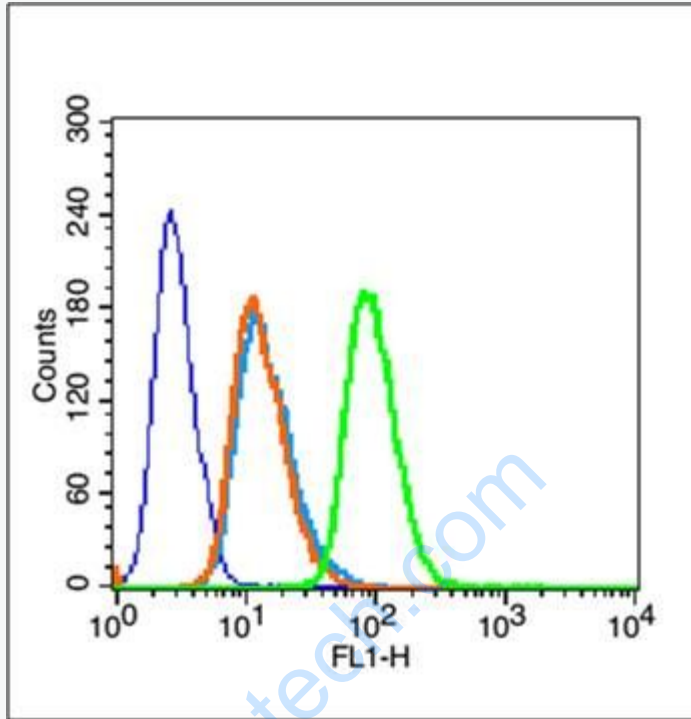
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P27蛋白是一种新发现的周期素依赖激酶抑制剂,属于细胞周期的负性调控因子。P27基因及其产物的异常表达可能与某些Tumour的发生、发展有着密切的关系。P27蛋白对细胞周期的调控及在Tumour中发挥着很重要的作用。



Picture:

Paraformaldehyde-fixed, paraffin embedded (Rat brain); 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 (phospho-CDKN1B (Thr187)) Polyclonal Antibody, Unconjugated (SL5229R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control (blue line): MCF7(fixed with 70% ethanol (Overnight at 4°C) and then permeabilized with 90% ice-cold methanol for 30 min on ice)

Primary Antibody (green line): Rabbit Anti-phospho-CDKN1B (Thr187) antibody (SL5229R), Dilution: 0.2µg /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC, Dilution: 1µg /test.