

# Rabbit Anti-Cdc25C antibody

## SL10579R

Product Name:	Cdc25C
Chinese Name:	细胞分裂周期蛋白25C抗体
Alias:	CDC 25; Cdc 25C; CDC25; Cell division cycle 25 homolog C; Cell division cycle 25C; Cell division cycle 25C protein; Dual specificity phosphatase Cdc25C; M phase inducer phosphatase 3; Mitosis inducer CDC25; MPIP3; Phosphotyrosine phosphatase; MPIP3 HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Dog, Pig, Cow,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=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:	53kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	lmg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Cdc25C:321-420/473
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:	This gene is highly conserved during evolution and it plays a key role in the regulation of cell division. The encoded protein is a tyrosine phosphatase and belongs to the Cdc25 phosphatase family. It directs dephosphorylation of cyclin B-bound CDC2 and triggers entry into mitosis. It is also thought to suppress p53-induced growth arrest. Multiple

alternatively spliced transcript variants of this gene have been described, however, the full-length nature of many of them is not known. [provided by RefSeq, Jul 2008]

#### **Function:**

Functions as a dosage-dependent inducer in mitotic control. It is a tyrosine protein phosphatase required for progression of the cell cycle. It directly dephosphorylates CDK1 and activate its kinase activity.

#### **Subunit:**

Interacts with HIV-1 Vpr, thereby inactivating CDC25C phosphatase activity. Interacts with MAPK14 and 14-3-3 proteins.

#### **Subcellular Location:**

Nucleus.

#### **Post-translational modifications:**

Phosphorylated by CHEK1 and MAPK14 at Ser-216. This phosphorylation creates a binding site for 14-3-3 protein and inhibits the phosphatase. Phosphorylated by PLK4. Phosphorylated by PLK1, leading to activate the phosphatase activity. Phosphorylation by PLK3 at Ser-191 promotes nuclear translocation. Ser-198 is a minor phosphorylation site. Was initially reported to be phosphorylated by PLK3 at Ser-216 (PubMed:10557092). However, such phosphorylation by PLK3 was not confirmed by other groups. Phosphorylation at Thr-48, Thr-67, Ser-122, Thr-130, Ser-168 and Ser-214 occurs at G2 and G2-M transition and is probably catalyzed by CDK1. Ser-168 phosphorylation levels are lower than those at the other 5 CDK1 sites. Phosphorylation by CDK1 leads to increased activity.

#### Similarity:

Belongs to the MPI phosphatase family. Contains 1 rhodanese domain.

#### SWISS:

P30307

#### Gene ID:

995

#### Database links:

Entrez Gene: 995Human

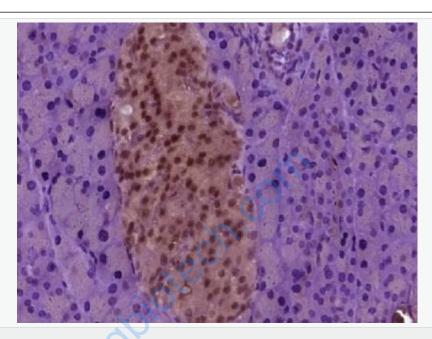
Omim: 157680Human

SwissProt: P30307Human

Unigene: 656Human

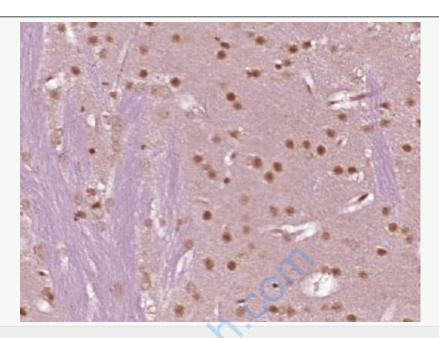
### **Important Note:**

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

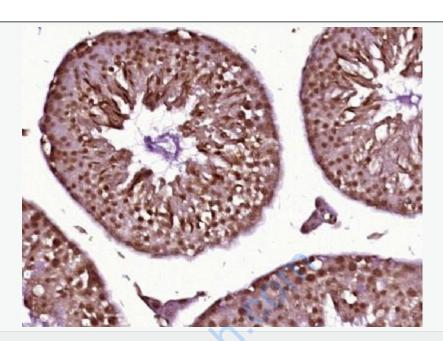


#### Picture:

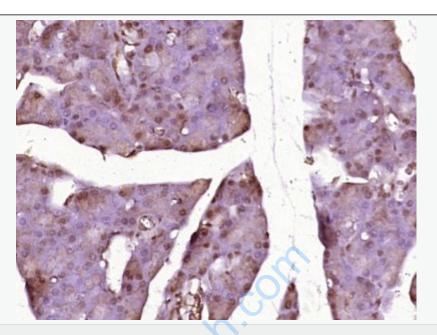
Paraformaldehyde-fixed, paraffin embedded (mouse pancreas tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Cdc25C) Polyclonal Antibody, Unconjugated (SL10579R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



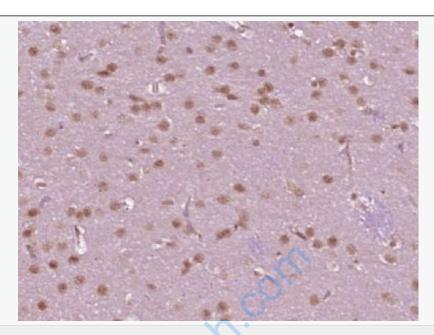
Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Cdc25C) Polyclonal Antibody, Unconjugated (SL10579R) 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 (mouse testis tissue); 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 (Cdc25C) Polyclonal Antibody, Unconjugated (SL10579R) 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 pancreas tissue); 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 (Cdc25C) Polyclonal Antibody, Unconjugated (SL10579R) 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 brain tissue); 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 (Cdc25C) Polyclonal Antibody, Unconjugated (SL10579R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.