

# Rabbit Anti-Cdc25B antibody

# SL4094R

Product Name:	Cdc25B
Chinese Name:	细胞分裂周期蛋白25B抗体
Alias:	Cdc 25B; Cdc25b; Cdc-25b; CDC25HU2; Cdc25m2; Cell division cycle 25 homolog B; Cell division cycle 25B; Cell division cycle 25B isoform 1; Cell division cycle 25B isoform 2; Cell division cycle 25B isoform 3; Cell division cycle 25B isoform 4; Cell division cycle 25B isoform 5; Dual specificity phosphatase Cdc25B; M phase inducer phosphatase 2; M-phase inducer phosphatase 2; MPIP2_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Dog, Pig, Cow, Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=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:	65kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Cdc25B:501-580/580
Lsotype:	$\lg G$
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:	CDC25B is a member of the CDC25 family of phosphatases. CDC25B activates the cyclin dependent kinase CDC2 by removing two phosphate groups and it is required for entry into mitosis. CDC25B shuttles between the nucleus and the cytoplasm due to

nuclear localization and nuclear export signals. The protein is nuclear in the M and G1 phases of the cell cycle and moves to the cytoplasm during S and G2. CDC25B has oncogenic properties, although its role in tumor formation has not been determined. Multiple transcript variants for this gene exist. [provided by RefSeq, Jul 2008].

# **Function:**

Tyrosine protein phosphatase which functions as a dosage-dependent inducer of mitotic progression. Required for G2/M phases of the cell cycle progression and abscission during cytokinesis in a ECT2-dependent manner. Directly dephosphorylates CDK1 and stimulates its kinase activity. The three isoforms seem to have a different level of activity.

#### **Subunit:**

Interacts with MAPK14 and 14-3-3 proteins.

#### **Subcellular Location:**

Cytoplasm, cytoskeleton, centrosome. Cytoplasm, cytoskeleton, spindle pole.

# **Post-translational modifications:**

Phosphorylated by BRSK1 in vitro. Phosphorylated by CHEK1, which inhibits the activity of this protein. Phosphorylation at Ser-353 by AURKA might locally participate in the control of the onset of mitosis. Phosphorylation by MELK at Ser-169 promotes localization to the centrosome and the spindle poles during mitosis. Phosphorylation at Ser-323 and Ser-375 by MAPK14 is required for binding to 14-3-3 proteins.

# Similarity:

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

#### SWISS:

P30305

### Gene ID:

994

#### Database links:

Entrez Gene: 994Human

Entrez Gene: 12531Mouse

Entrez Gene: 171103Rat

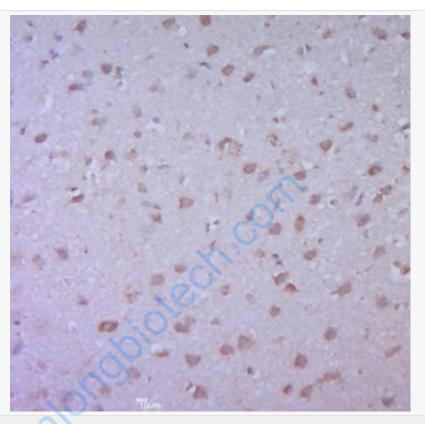
Omim: 116949Human

SwissProt: P30305Human

SwissProt: P30306Mouse

	SwissProt: P48966Rat
	Unigene: 153752Human
	Unigene: 38444 Mouse
	Unigene: 11312Rat
	Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Picture:	135— 100— 75— 63— ———————————————————————————————————
	Sample:
	Spleen (Mouse) Lysate at 40 ug
	Primary: Anti-Cdc25B (SL4094R) at 1/300 dilution
	Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
	Predicted band size: 65 kD

Observed band size: 65 kD



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 (Cdc25B) Polyclonal Antibody, Unconjugated (SL4094R) at 1:400 overnight at 4°C, followed by a conjugated secondary antibody (sp-0023) for 20 minutes and DAB staining.