

Anti-Cdc25B Picoband Antibody

Catalog # ABO12176

Product Information

Application	WB, IHC-P
Primary Accession	P30305
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for M-phase inducer phosphatase 2(CDC25B) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	994
Other Names	M-phase inducer phosphatase 2, 3.1.3.48, Dual specificity phosphatase Cdc25B, CDC25B, CDC25HU2
Calculated MW	64987
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Mouse, Rat, Human, By Heat Western blot, 0.1-0.5 µg/ml, Rat, Human
Subcellular Localization	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle pole.
Source	Eukaryota
Protein Name	M-phase inducer phosphatase 2
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Na ₃ .
Immunogen	E.coli-derived human Cdc25B recombinant protein (Position: M119-L248). Human Cdc25B shares 71% and 68.2% amino acid (aa) sequence identity with mouse and rat Cdc25B, respectively.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated

Sequence Similarities

freezing and thawing.
Belongs to the MPI phosphatase family.

Protein Information

Name	CDC25B
Synonyms	CDC25HU2
Function	Tyrosine protein phosphatase which functions as a dosage- dependent inducer of mitotic progression (PubMed: 1836978 , PubMed: 20360007). Directly dephosphorylates CDK1 and stimulates its kinase activity (PubMed: 20360007). Required for G2/M phases of the cell cycle progression and abscission during cytokinesis in a ECT2-dependent manner (PubMed: 17332740). The three isoforms seem to have a different level of activity (PubMed: 1836978).
Cellular Location	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle pole

Background

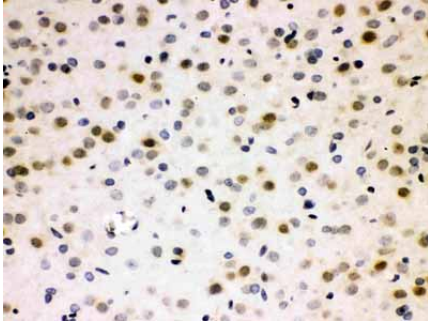
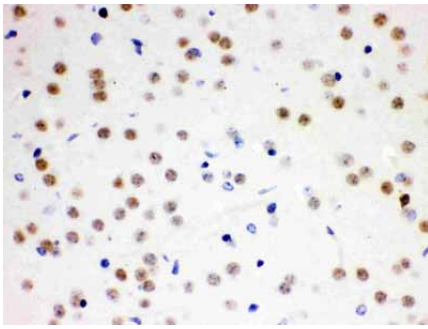
Central to the onset of mitosis in all eukaryotic cells is the CDC2 protein kinase, the activity of which is negatively regulated by phosphorylation and positively activated by dephosphorylation. The latter function is carried out by a specific phosphatase, CDC25. At least 3 human CDC25 genes code for the A, B, and C forms of CDC25. CDC25B is mapped to 20p13. P38 kinase has a critical role in the initiation of a G2 delay after ultraviolet radiation. Inhibition of p38 blocks the rapid initiation of this checkpoint in both human and murine cells after ultraviolet radiation. In vitro, p38 binds and phosphorylates CDC25B at serines 309 and 361, and CDC25C at serine-216; phosphorylation of these residues is required for binding to 14-3-3 proteins. In vivo, inhibition of p38 prevents both phosphorylation of CDC25B at serine-309 and 14-3-3 binding after ultraviolet radiation, and mutation of this site is sufficient to inhibit the checkpoint initiation. Regulation of CDC25B phosphorylation by p38 is a critical event for initiating the G2/M checkpoint after ultraviolet radiation.

Images



Anti- Cdc25B Picoband antibody, ABO12176, Western blotting
All lanes: Anti Cdc25B (ABO12176) at 0.5ug/ml
Lane 1: Rat Liver Tissue Lysate at 50ug
Lane 2: Rat Testis Tissue Lysate at 50ug
Predicted bind size: 65KD
Observed bind size: 65KD

Anti- Cdc25B Picoband antibody, ABO12176,
IHC(P)
IHC(P): Mouse Brain Tissue



Anti- Cdc25B Picoband antibody, ABO12176,
IHC(P)IHC(P): Rat Brain Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.