Product Name: Cdc25A Rabbit Polyclonal Antibody
Catalog #: APRab08504

Summary

Production Name	Cdc25A Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Mouse,Rat,Monkey

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	CDC25A
Alternative Names	CDC25A; M-phase inducer phosphatase 1; Dual specificity phosphatase Cdc25A
Gene ID	993.0
SwissProt ID	P30304.The antiserum was produced against synthesized peptide derived from human CDC25A. AA range:43-92

Application

Dilution Ratio	WB 1:500-1:2000. ELISA: 1:10000.
Molecular Weight	60kD

Background

cell division cycle 25A(CDC25A) Homo sapiens CDC25A is a member of the CDC25 family of phosphatases. CDC25A is

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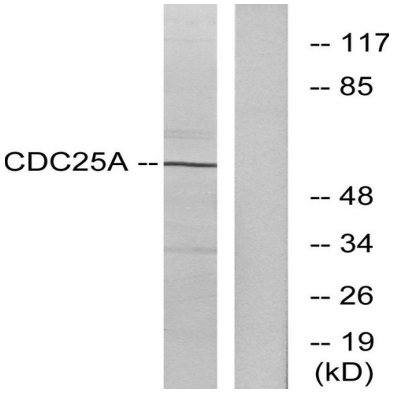
required for progression from G1 to the S phase of the cell cycle. It activates the cyclin-dependent kinase CDC2 by removing two phosphate groups. CDC25A is specifically degraded in response to DNA damage, which prevents cells with chromosomal abnormalities from progressing through cell division. CDC25A is an oncogene, although its exact role in oncogenesis has not been demonstrated. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008],catalytic activity:Protein tyrosine phosphate + H(2)O = protein tyrosine + phosphate.,domain:The phosphodegron motif mediates interaction with specific F-box proteins when phosphorylated. Putative phosphorylation sites at Ser-79 and Ser-82 appear to be essential for this interaction.,enzyme regulation:Stimulated by B-type cyclins.,function:Tyrosine protein phosphatase which functions as a dosage-dependent inducer of mitotic progression. Directly dephosphorylates CDC2 and stimulates its kinase activity. Also dephosphorylates CDK2 in complex with cyclin E, in vitro.,PTM:Phosphorylated by CHEK1 on Ser-76, Ser-124, Ser-178, Ser-279, Ser-293 and Thr-507 during checkpoint mediated cell cycle arrest. Also phosphorylated by CHEK2 on Ser-124, Ser-279, and Ser-293 during checkpoint mediated cell cycle arrest. Phosphorylation on Ser-178 and Thr-507 creates binding sites for YWHAE/14-3-3 epsilon which inhibits CDC25A. Phosphorylation on Ser-76, Ser-124, Ser-178, Ser-279 and Ser-293 may also promote ubiquitin-dependent proteolysis of CDC25A.,PTM:Ubiquitinated. Association with the F-box proteins BTRC and FBXW11 targets the protein for ubiquitination by CUL1 and proteolysis by the ubiquitin-dependent proteasome pathway.,similarity:Belongs to the MPI phosphatase family.,similarity:Contains 1 rhodanese domain.,subunit:Interacts with CCNB1/cyclin B1. Interacts with YWHAE/14-3-3 epsilon when phosphorylated. Interacts with CUL1 specifically when CUL1 is neddylated and active. Interacts with BTRC/BTRCP1 and FBXW11/BTRCP2. Interactions with CUL1, BTRC and FBXW11 are enhanced upon DNA damage.,

Research Area

Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;Progesterone-mediated oocyte maturation;

Image Data



Western blot analysis of lysates from A2780 cells, treated with UV, using CDC25A Antibody. The lane on the right is blocked with the synthesized peptide.

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Note

For research use only.