

**Product Name: Cdc25A (phospho Ser178) Rabbit Polyclonal Antibody**  
**Catalog #: APRab04417**

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## Summary

<b>Production Name</b>	Cdc25A (phospho Ser178) Rabbit Polyclonal Antibody
<b>Description</b>	Rabbit Polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ELISA
<b>Reactivity</b>	Human,Mouse,Rat

## Performance

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

## Immunogen

<b>Gene Name</b>	CDC25A
<b>Alternative Names</b>	CDC25A; M-phase inducer phosphatase 1; Dual specificity phosphatase Cdc25A
<b>Gene ID</b>	993.0
<b>SwissProt ID</b>	P30304.The antiserum was produced against synthesized peptide derived from human CDC25A around the phosphorylation site of Ser178. AA range:144-193

## Application

<b>Dilution Ratio</b>	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000..
<b>Molecular Weight</b>	59kD

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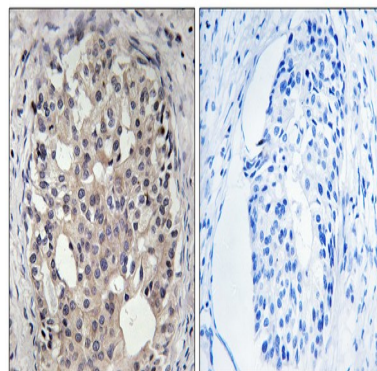
## Background

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



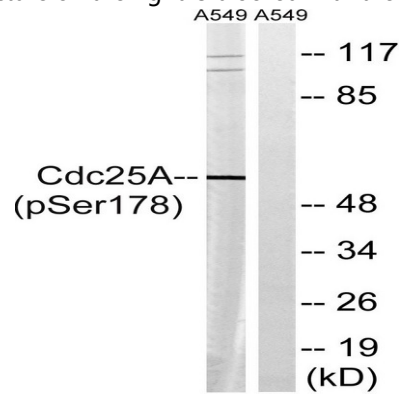
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Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using CDC25A (Phospho-Ser178)

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Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from A549 cells treated with UV 15', using CDC25A (Phospho-Ser178) Antibody. The lane on the right is blocked with the phospho peptide.

### Note

For research use only.