

## Cdc25A (phospho Ser178) Polyclonal Antibody

Catalog No: YP0769

**Reactivity:** Human; Mouse; Rat

**Applications:** WB;IHC;IF;ELISA

Target: Cdc25A

**Fields:** >>Cell cycle;>>Cellular senescence;>>Progesterone-mediated oocyte

maturation;>>MicroRNAs in cancer;>>Chemical carcinogenesis - receptor

activation

Gene Name: CDC25A

**Protein Name:** M-phase inducer phosphatase 1

P48964

Human Gene Id: 993

Human Swiss Prot P30304

No:

**Mouse Swiss Prot** 

No:

**Rat Gene Id:** 171102

Rat Swiss Prot No: P48965

**Immunogen:** The antiserum was produced against synthesized peptide derived from human

CDC25A around the phosphorylation site of Ser178. AA range:144-193

Specificity: Phospho-Cdc25A (S178) Polyclonal Antibody detects endogenous levels of

Cdc25A protein only when phosphorylated at S178.

**Formulation :** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

**Dilution :** WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000.. IF 1:50-200

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**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 59kD

Cell Pathway: Cell\_Cycle\_G1S;Cell\_Cycle\_G2M\_DNA;Progesterone-mediated oocyte

maturation;

**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],

**Function :** catalytic activity:Protein tyrosine phosphate + H(2)O =protein tyrosine +

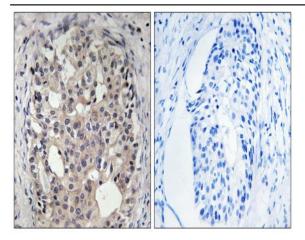
phosphate.,domain:The phosphodegron motif mediates interaction with specific F-box proteins when phosphorylated. Putative phosphorylation sites at Ser-79 and Ser-82 appear to be essential for this interaction.,enzyme regulation:Stimulated by B-type cyclins.,function:Tyrosine protein phosphatase which 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 whi

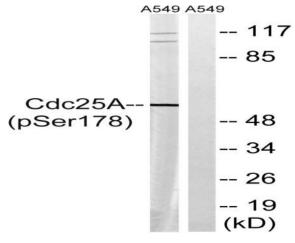
Subcellular Location : intracellular, nucleus, nucleoplasm, cytoplasm, cytosol,

**Expression:** Lymph,

## **Products Images**



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