

## Cdc25A (Phospho Ser178) Rabbit pAb

CatalogNo: YP0769 **Orthogonal Validated** 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 59kD (Observed)

#### Isotype

- IgG

### Storage

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

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

### Recommended Dilution Ratios

**WB 1:500-1:2000**

**IHC 1:100-1:300**

**ELISA 1:10000**

**IF 1:50-200**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**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. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites): QNsAP

## Target Information

**Gene name** CDC25A

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

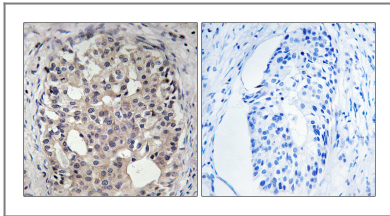
Organism	Gene ID	UniProt ID
Human	<a href="#">993</a> ;	<a href="#">P30304</a> ;
Mouse		<a href="#">P48964</a> ;
Rat	<a href="#">171102</a> ;	<a href="#">P48965</a> ;

**Cellular Localization** intracellular , nucleus , nucleoplasm , cytoplasm , cytosol ,

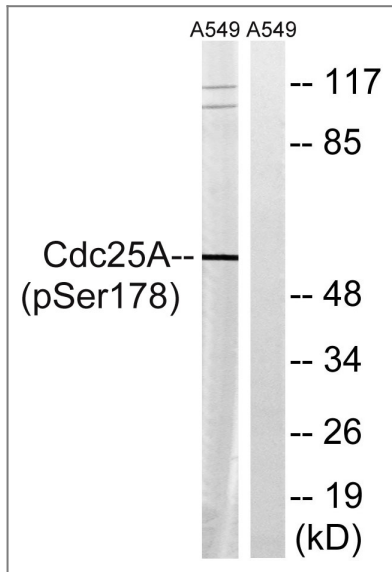
**Tissue specificity** Lymph ,

**Function** Catalytic activity: Protein tyrosine phosphate + H<sub>2</sub>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. ,

## Validation Data



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.

## Contact information

Orders: [order.cn@immunoway.com](mailto:order.cn@immunoway.com)  
Support: [support.cn@immunoway.com](mailto:support.cn@immunoway.com)  
Telephone: 400-8787-807(China)  
Website: <http://www.immunoway.com.cn>  
Address: 2200 Ringwood Ave San Jose, CA 95131 USA



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**Cdc25A (Phospho Ser178) Rabbit pAb**

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