

**Phospho-CDC25A(S124) Antibody**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP3045a**

## Specification

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### Phospho-CDC25A(S124) Antibody - Product Information

Application	<b>WB, IHC-P,E</b>
Primary Accession	<a href="#">P30304</a>
Other Accession	<a href="#">P48965</a>
Reactivity	<b>Human</b>
Predicted	<b>Rat</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>

### Phospho-CDC25A(S124) Antibody - Additional Information

**Gene ID** 993

#### Other Names

M-phase inducer phosphatase 1, Dual specificity phosphatase Cdc25A, CDC25A

#### Target/Specificity

This CDC25A Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S124 of human CDC25A.

#### Dilution

WB~~1:500

IHC-P~~1:100

#### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

Phospho-CDC25A(S124) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Phospho-CDC25A(S124) Antibody - Protein Information

**Name** CDC25A

**Function** Tyrosine protein phosphatase which functions as a dosage- dependent inducer of mitotic progression (PubMed:[12676925](#), PubMed:[14559997](#), PubMed:[1836978](#), PubMed:[20360007](#)).

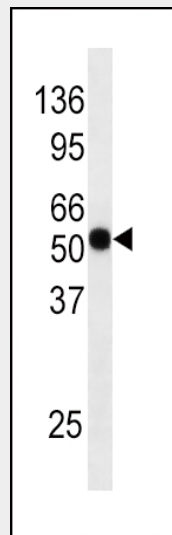
Directly dephosphorylates CDK1 and stimulates its kinase activity (PubMed:[20360007](#)). Also dephosphorylates CDK2 in complex with cyclin-E, in vitro (PubMed:[20360007](#)).

### Phospho-CDC25A(S124) Antibody - Protocols

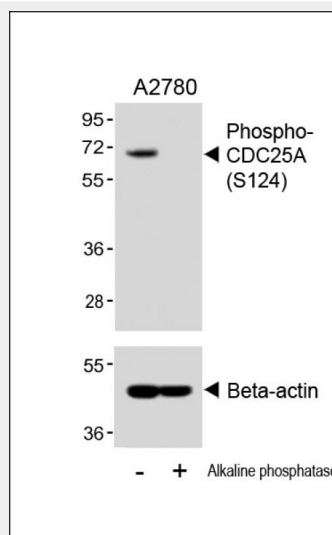
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

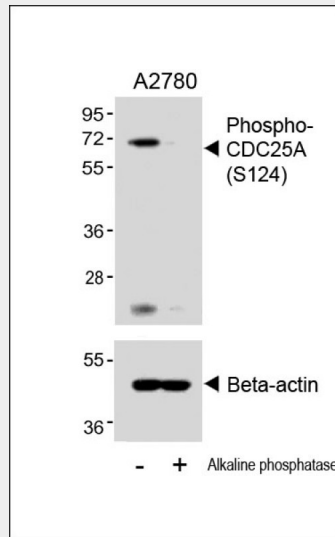
### Phospho-CDC25A(S124) Antibody - Images



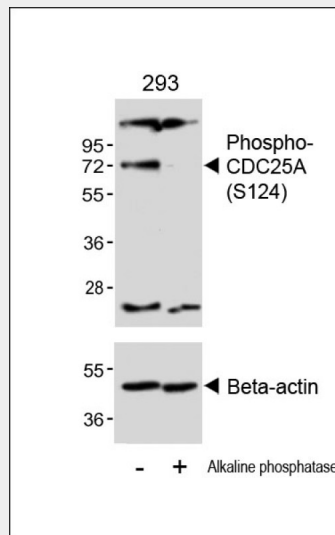
The anti-phospho CDC25A S124 Pab (Cat. #AP3045a) is used in Western blot to detect CDC25A in mouse liver tissue lysate



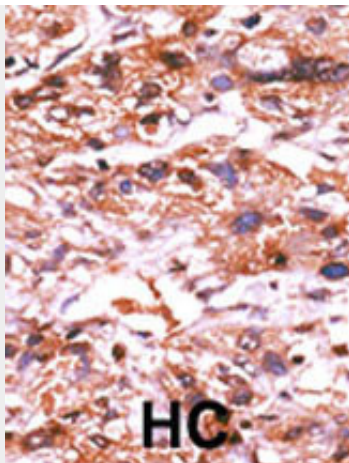
Western blot analysis of lysates from A2780 cell line, untreated or treated with Alkaline phosphatase, 1h, using 459085101(Cat. #AP3045A)(upper) or Beta-actin (lower).



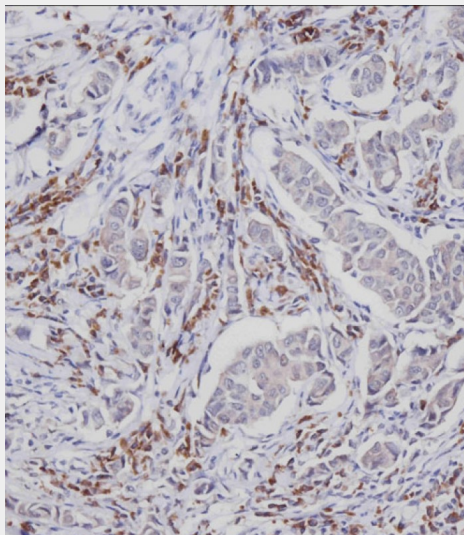
Western blot analysis of lysates from A2780 cell line, untreated or treated with Alkaline phosphatase, 1h, using 459088101(Cat. #AP3045A)(upper) or Beta-actin (lower).



Western blot analysis of lysates from 293 cell line, untreated or treated with Alkaline phosphatase, 1h, using 459088102(Cat. #AP3045A)(upper) or Beta-actin (lower).



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Immunohistochemical analysis of AP3045A on paraffin-embedded Human breast carcinoma tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

### **Phospho-CDC25A(S124) Antibody - Background**

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.

### **Phospho-CDC25A(S124) Antibody - References**

Ito, Y., et al., *Int. J. Mol. Med.* 13(3):431-435 (2004). Nemoto, K., et al., *Prostate* 58(1):95-102 (2004). Goloudina, A., et al., *Cell Cycle* 2(5):473-478 (2003). Chen, M.S., et al., *Mol. Cell. Biol.* 23(21):7488-7497 (2003). Chow, J.P., et al., *Mol. Biol. Cell* 14(10):3989-4002 (2003).

**Phospho-CDC25A(S124) Antibody - Citations**

- [CHEK2 genomic and proteomic analyses reveal genetic inactivation or endogenous activation across the 60 cell lines of the US National Cancer Institute.](#)
- [Death receptor-induced activation of the Chk2- and histone H2AX-associated DNA damage response pathways.](#)