


## Product datasheet

# Anti-Cdc25A antibody ab989

★★★★☆ [1 Abreviews](#) [11 References](#) [2 Images](#)

### Overview

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<b>Product name</b>	Anti-Cdc25A antibody
<b>Description</b>	Rabbit polyclonal to Cdc25A
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IP, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Chimpanzee, Orangutan 
<b>Immunogen</b>	Synthetic peptide (Human) conjugated to KLH - which represented a portion of human Cell Division Cycle 25a encoded by exon 7 (LocusLink ID 993).
<b>Positive control</b>	WB: HeLa and HEK-293T whole cell lysates. IP: HEK-293T whole cell lysate.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7 Preservative: 0.1% Sodium azide Constituents: 0.021% PBS, 1.764% Sodium citrate, 1.815% Tris
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

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## The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab989 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		Use at 2-10 µg/mg of lysate.
WB	★★★★★ (1)	1/1000 - 1/10000. Detects a band of approximately 65 kDa (predicted molecular weight: 59 kDa).

## Target

### Function

Tyrosine protein phosphatase which functions as a dosage-dependent inducer of mitotic progression. Directly dephosphorylates CDK1 and stimulates its kinase activity. Also dephosphorylates CDK2 in complex with cyclin E, in vitro.

### Sequence similarities

Belongs to the MPI phosphatase family.  
Contains 1 rhodanese domain.

### 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.

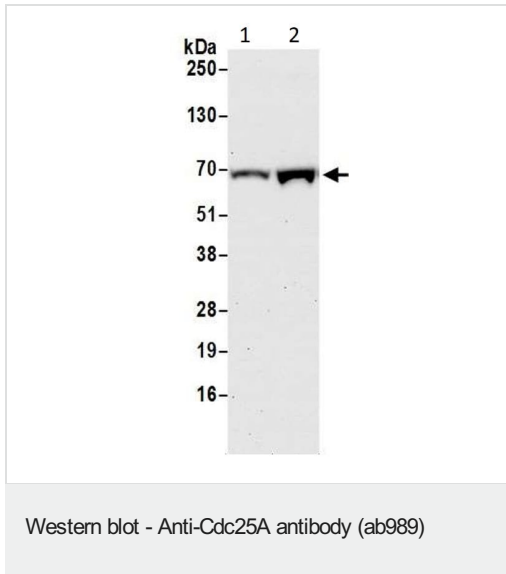
### Post-translational modifications

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 by the SCF complex. Phosphorylation of CDC25A at Ser-76 by CHEK1 primes it for subsequent phosphorylation at Ser-79, Ser-82 and Ser-88 by NEK11. Phosphorylation by NEK11 is required for BTRC-mediated polyubiquitination and degradation. Phosphorylation by PIM1 leads to an increase in phosphatase activity. Phosphorylated by PLK3 following DNA damage, leading to promote its ubiquitination and degradation.

Ubiquitinated by the anaphase promoting complex/cyclosome (APC/C) ubiquitin ligase complex that contains FZR1/CDH1 during G1 phase leading to its degradation by the proteasome.

Ubiquitinated by a SCF complex containing BTRC and FBXW11 during S phase leading to its degradation by the proteasome. Deubiquitination by USP17L2/DUB3 leads to its stabilization.

## Images



**All lanes :** Anti-Cdc25A antibody (ab989) at 1 µg/ml

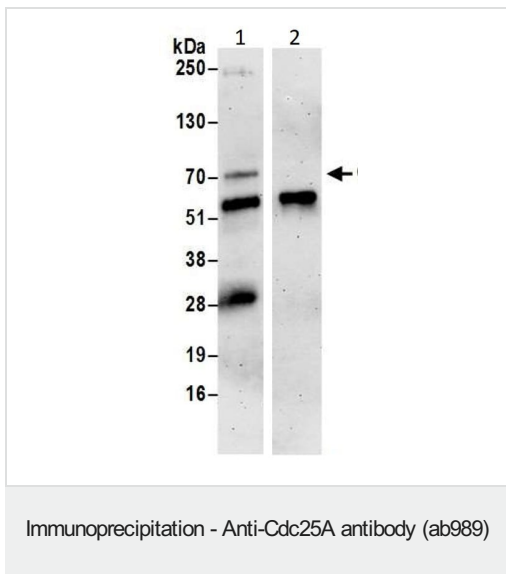
**Lane 1 :** HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

**Lane 2 :** HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

Lysates/proteins at 50 µg per lane.

**Predicted band size:** 59 kDa

**Exposure time:** 3 minutes



Cdc25A was immunoprecipitated from HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate (0.5 or 1 mg for IP, 20% of IP loaded) with ab989 at 6 µg/mg lysate. Western blot was performed from the immunoprecipitate using ab989 at 1 µg/ml.

**Lane 1:** ab989 IP in HEK-293T whole cell lysate.

**Lane 2:** Control IgG IP in HEK-293T whole cell lysate.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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