

Product datasheet

Anti-Cdc25A (phospho S76) antibody ab75743

[6 References](#) [2 Images](#)

Overview

Product name	Anti-Cdc25A (phospho S76) antibody
Description	Rabbit polyclonal to Cdc25A (phospho S76)
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to Human Cdc25A (phospho S76). Run BLAST with ExPASy Run BLAST with NCBI
Positive control	Human breast carcinoma tissue; extracts from A2780 cells untreated or treated with UV.
General notes	<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&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 50% Glycerol, 0.87% Sodium chloride, PBS Without Mg ²⁺ and Ca ²⁺
Purity	Immunogen affinity purified
Purification notes	ab75743 was affinity purified from rabbit antiserum by affinity chromatography using epitope specific phosphopeptide. The antibody against non phosphopeptide was removed by chromatography using non phosphopeptide corresponding to the phosphorylation site.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab75743 in the following tested applications.

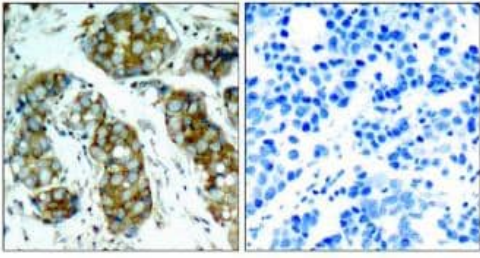
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/1000. Predicted molecular weight: 59 kDa.
IHC-P		1/50 - 1/100.

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.

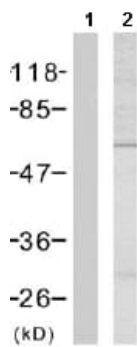
Images



P-Peptide - +

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cdc25A (phospho S76) antibody (ab75743)

ab75743, at a 1/50 dilution, staining Cdc25A in paraffin embedded human breast carcinoma tissue by Immunohistochemistry, in the absence (left image) or presence (right image) of the immunizing phospho peptide.



Western blot - Anti-Cdc25A (phospho S76) antibody (ab75743)

All lanes : Anti-Cdc25A (phospho S76) antibody (ab75743) at 1/500 dilution

Lane 1 : A2780 cell extracts, untreated

Lane 2 : A2780 cell extracts, treated with UV

Predicted band size: 59 kDa

Observed band size: 59 kDa

Additional bands at: 30 kDa. We are unsure as to the identity of these extra bands.

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

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