

Product datasheet

Anti-Cdc25A antibody [DCS-120 + DCS-121] ab2357

★★★★★ 1 Abreviews 11 References 1 Image

Overview

Product name	Anti-Cdc25A antibody [DCS-120 + DCS-121]
Description	Mouse monoclonal [DCS-120 + DCS-121] to Cdc25A
Host species	Mouse
Tested applications	Suitable for: IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant full length protein corresponding to Human Cdc25A.
Positive control	Tonsil.
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> <p>Please note that this antibody is an oligoclonal antibody. It is a cocktail of monoclonal antibodies that have been carefully selected. Oligoclonal antibodies have not only the specificity and batch-to-batch consistency of a monoclonal antibody, but also have the advantage of the sensitivity of a polyclonal antibody due to their ability to recognize multiple epitopes on an antigen.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.3 Preservative: 0.05% Sodium azide Constituent: 1% BSA
Purity	IgG fraction
Clonality	Monoclonal
Clone number	DCS-120 + DCS-121

Myeloma	unknown
Isotype	IgG2a
Light chain type	unknown

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab2357 in the following tested applications.

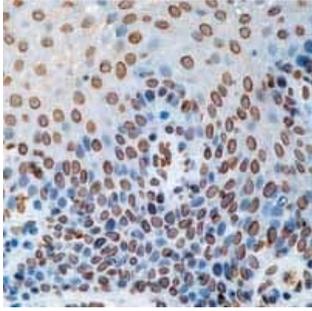
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★ ★ ★ ★ ★ (1)	1/50 - 1/100. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol. ABC method.

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



ab2357 staining human tonsil by IHC-P.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cdc25A antibody [DCS-120 + DCS-121] (ab2357)

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