abcam

## Product datasheet

# Anti-CDK1 antibody [POH-1] ab8040

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### 概述

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|---|---|
| **产品名称** | Anti-CDK1抗体[POH-1] |
| **描述** | 小鼠单克隆抗体[POH-1] to CDK1 |
| **宿主** | Mouse |
| **特异性** | Reacts with Cdc2 |
| **经测试应用** | **适用于:** ICC/IF, IP, WB, Flow Cyt, IHC-P |
| **种属反应性** | **与反应:** Mouse, Cow, Human, Mink, Monkey<br>**不与反应:** Rat, Saccharomyces cerevisiae, Xenopus laevis, Drosophila melanogaster, Schizosaccharomyces pombe |
| **免疫原** | Recombinant full length protein (Human). |
| **阳性对照** | HeLa. |

### 性能

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| **形式** | Liquid |
| **存放说明** | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. |
| **存储溶液** | Preservative: 15mM Sodium Azide<br>Constituents: PBS, pH 7.4 |
| **纯度** | >95% by SDS-PAGE |
| **克隆** | 单克隆 |
| **克隆编号** | POH-1 |
| **同种型** | IgG2a |

### 应用

Our Abpromise guarantee covers the use of **ab8040** in the following tested applications.

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

| 应用 | Ab评论 | 说明 |
|---|---|---|
| ICC/IF | | Use a concentration of 1 µg/ml. |
| IP | | Use at an assay dependent concentration. |
| WB | ★★★★★ | Use at an assay dependent concentration. Predicted molecular weight: 34 kDa. |
| Flow Cyt | | Use 1µg for $10^6$ cells.<br>ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody. |
| IHC-P | | Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. |

## 靶标

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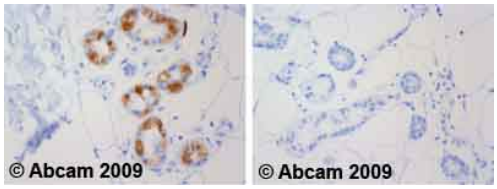
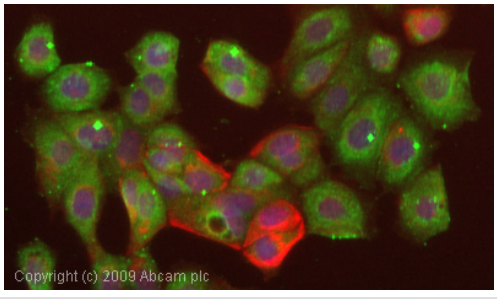
|---|---|
| **功能** | Plays a key role in the control of the eukaryotic cell cycle. It is required in higher cells for entry into S-phase and mitosis. p34 is a component of the kinase complex that phosphorylates the repetitive C-terminus of RNA polymerase II. |
| **组织特异性** | Isoform 2 is found in breast cancer tissues. |
| **序列相似性** | Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.<br>Contains 1 protein kinase domain. |
| **细胞定位** | Nucleus. |
| **形式** | CDK1 can be located to the Nucleus, cytoplasm and Mithocondria. It's cytoplasmic during interphase and reversibly translocated from cytoplasm to the nucleus when phosphorilated before G2-M transition when associated with cyclin-B1. Accumulates in mitochondria in G2-arrested cells upon DNA-damage. |

## 图片



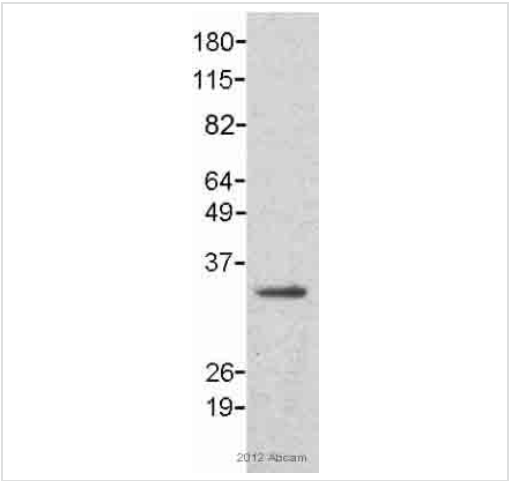

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Cdc2 antibody [POH-1] (ab8040)

Ab8040 staining human normal skin. Staining is localised to the cytoplasm.
Left panel: with primary antibody at 2 ug/ml.
Right panel: isotype control.
Sections were stained using an automated system DAKO Autostainer Plus , at room temperature. Sections were rehydrated and antigen retrieved with the Dako 3-in-1 antigen retrieval buffers EDTA pH 9.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 minutes. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 minutes and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric detection was completed with diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and amplification may be required.




Immunocytochemistry/ Immunofluorescence - Cdc2 antibody [POH-1] (ab8040)

ICC/IF image of ab8040 stained MCF7 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab8040, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.




Western blot - Anti-CDK1 antibody [POH-1] (ab8040)

Image courtesy of an anonymous Abreview.

Anti-CDK1 antibody [POH-1] (ab8040) at 1/3000 dilution + whole tissue lysate prepared from murine liver at 100 µg

**Secondary**

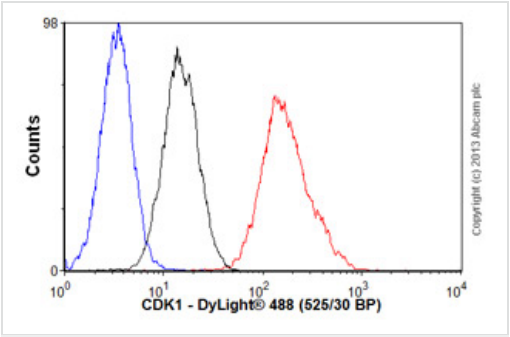
HRP conjugated goat anti-mouse polyclonal

Developed using the ECL technique.

**Predicted band size:** 34 kDa

**Observed band size:** 34 kDa

**Exposure time:** 20 seconds




Flow Cytometry-Anti-CDK1 antibody [POH-1] (ab8040)

Overlay histogram showing HeLa cells stained with ab8040 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab8040, 1µg/1x$10^6$ cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (ab91361, 1µg/1x$10^6$ cells) used under the same conditions. Unlabelled sample (blue line). Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



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