


## Product datasheet

# Anti-CDK1 antibody [EPR165] - BSA and Azide free ab224269

Recombinant RabMAb

[5 References](#) [5 Images](#)

### Overview

<b>Product name</b>	Anti-CDK1 antibody [EPR165] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EPR165] to CDK1 - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Specificity</b>	We have preliminary internal testing data to indicate this antibody doesn't react with CDK2, CDK3 and CDK5. Please contact us for more information.
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), IHC-P, ICC/IF, IP, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse 
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: HeLa, Saos-2, Namalwa, and Jurkat whole cell lysate ( <a href="#">ab7899</a> ). IHC-P: Human tonsil tissue. IP: HeLa. Flow Cyt: Jurkat cells.
<b>General notes</b>	<p>ab224269 is the carrier-free version of <a href="#">ab133327</a>.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul>

For more information [see here](#).

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

## Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR165
Isotype	IgG

## Applications

**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab224269 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
Flow Cyt (Intra)		Use at an assay dependent concentration. <b>ab199376</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 34 kDa.

## Target

Function	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.
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## Tissue specificity

Isoform 2 is found in breast cancer tissues.

## Sequence similarities

Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.

Contains 1 protein kinase domain.

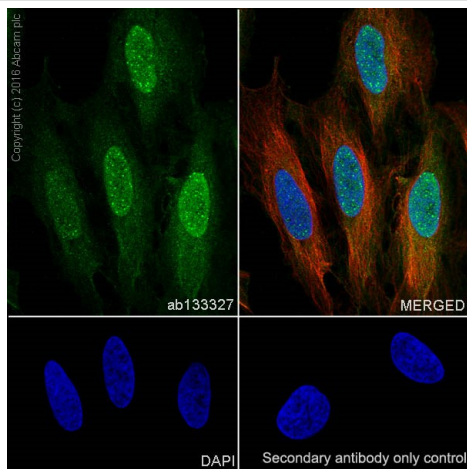
## Cellular localization

Nucleus.

## Form

CDK1 can be located to the Nucleus, cytoplasm and Mitochondria. It's cytoplasmic during interphase and reversibly translocated from cytoplasm to the nucleus when phosphorylated before G2-M transition when associated with cyclin-B1. Accumulates in mitochondria in G2-arrested cells upon DNA-damage.

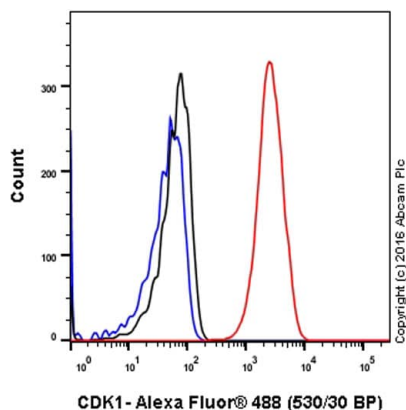
## Images



Immunocytochemistry/ Immunofluorescence - Anti-CDK1 antibody [EPR165] - BSA and Azide free (ab224269)

Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling CDK1 with [ab133327](#) at 1/500 dilution (0.6 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with [ab195889](#), an anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at 1/200 (2.5 µg/ml). [ab150077](#), a Goat anti-rabbit IgG (Alexa Fluor® 488) was used as the secondary antibody at 1/1000 dilution (2 µg/ml). DAPI nuclear counterstain. Confocal image showing strong nuclear and weakly cytoplasmic staining on HeLa cell line.

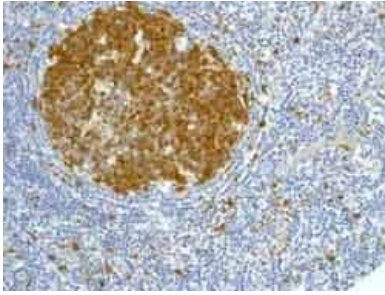
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab133327](#)).



Flow Cytometry (Intracellular) - Anti-CDK1 antibody [EPR165] - BSA and Azide free (ab224269)

Intracellular Flow Cytometry analysis of Jurkat (human acute T cell leukemia) cells labeling CDK1 with purified [ab133327](#) at 1/130 dilution (10ug/mL) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor®488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) was used as the unlabeled control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab133327](#)).

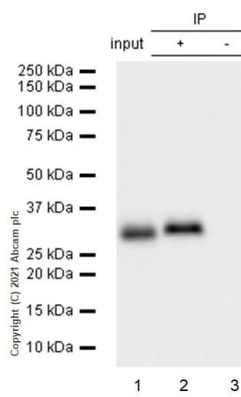


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CDK1 antibody [EPR165]  
- BSA and Azide free (ab224269)

This IHC data was generated using the same anti-CDK1 antibody clone [EPR165] in a different buffer formulation (cat# **ab133327**).

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labelling CDK1 with **ab133327** at 1/250 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-CDK1 antibody [EPR165]  
- BSA and Azide free (ab224269)

This data was developed using **ab133327**, the same antibody clone in a different buffer formulation.

CDK1 was immunoprecipitated from 0.35 mg HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10 µg with **ab133327** at 1/20 dilution (2µg) . VeriBlot for IP Detection Reagent (HRP)(**ab131366**) was used at 1/5000 dilution.

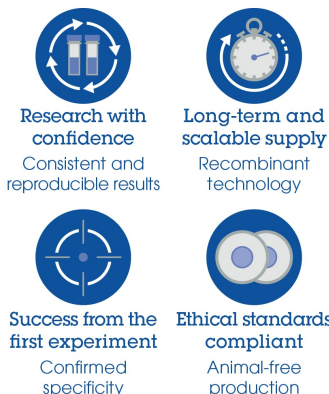
Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10 µg

Lane 2: abab133327 IP in HeLa whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab133327** in HeLa whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

### Why choose a recombinant antibody?



Anti-CDK1 antibody [EPR165] - BSA and Azide free (ab224269)

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