

## Product datasheet

# Anti-Cdk2 antibody [E304] ab32147

敲除验证
重组
RabMAb

★★★★☆
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### 概述

|       |   |
|-------|---|
| 产品名称  | Anti-Cdk2抗体[E304]   |
| 描述    | 兔单克隆抗体[E304] to Cdk2  |
| 宿主    | Rabbit  |
| 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, Rat, Human  |
| 免疫原   | Synthetic peptide within Human Cdk2 aa 250-350 (C terminal). The exact sequence is proprietary. |
| 表位    | The epitope is within the C-terminus of human Cdk2  |
| 阳性对照  | Hela cells Hela cell lysate.  |
| 常规说明  | A trial size is available to purchase for this antibody.  |

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](#)

**We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.**

This product is a recombinant rabbit monoclonal antibody.

### 性能

|      |   |
|------|---|
| 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. Avoid freeze / thaw cycle. |
| 存储溶液 | pH: 7.20<br>Preservative: 0.01% Sodium azide<br>Constituents: 59% PBS, 40% Glycerol, 0.05% BSA                          |
| 纯度   | Protein A purified  |

|      |      |
|------|------|
| 克隆   | 单克隆  |
| 克隆编号 | E304 |
| 同种型  | IgG  |

## 应用

Our [Abpromise guarantee](#) covers the use of **ab32147** in the following tested applications.

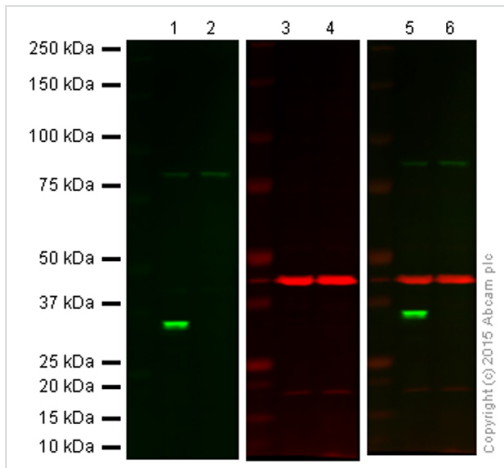
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| 应用       | Ab评论  | 说明  |
|----------|-------|---|
| ICC/IF   | ★★★★☆ | 1/200.<br><b>For unpurified use at 1/100.</b>   |
| IP       |       | 1/40.   |
| WB       | ★★★★★ | 1/1000 - 1/10000. Detects a band of approximately 33 kDa (predicted molecular weight: 34 kDa).  |
| Flow Cyt |       | 1/80.<br><a href="#">ab172730</a> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.  |
| IHC-P    |       | 1/50. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.<br>See <a href="#">IHC antigen retrieval protocols</a> . |

## 靶标

|       |  |
|-------|--|
| 功能    | Involved in the control of the cell cycle. Interacts with cyclins A, B1, B3, D, or E. Activity of CDK2 is maximal during S phase and G2. |
| 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. |

## 图片



Western blot - Anti-Cdk2 antibody [E304] (ab32147)

**Lanes 1, 3 and 5:** Wild-type HAP1 cell lysate (20 µg)

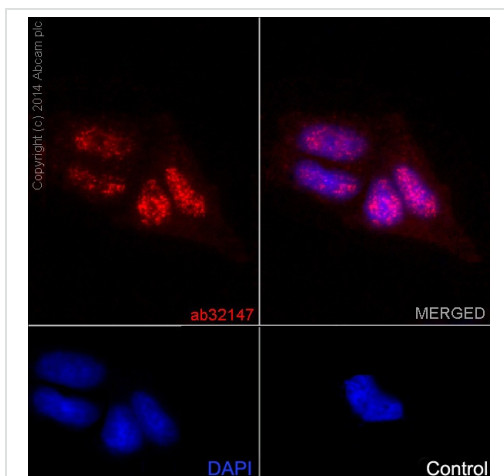
**Lanes 2, 4 and 6:** CDK2 knockout HAP1 cell lysate (20 µg)

**Lanes 1 and 2:** Green signal from target – ab32147 observed at 34 kDa

**Lanes 3 and 4:** Red signal from loading control – ab8226 observed at 42 kDa

**Lanes 5 and 6:** Merged (red and green) signal

ab32147 was shown to specifically react with CDK2 when CDK2 knockout samples were used. Wild-type and CDK2 knockout samples were subjected to SDS-PAGE. ab32147 and ab8226 (loading control to beta actin) were both diluted 1/1000 and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1/10 000 dilution for 1 h at room temperature before imaging.



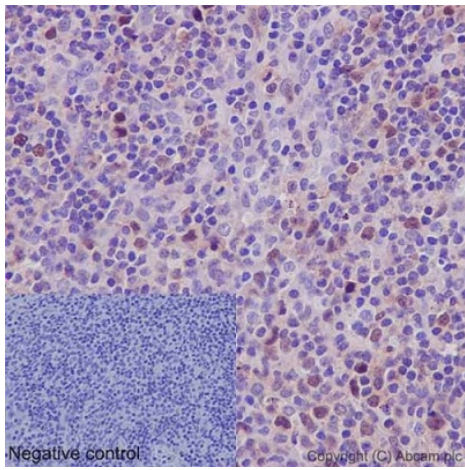
Immunocytochemistry/ Immunofluorescence - Anti-Cdk2 antibody [E304] (ab32147)

ab32147 staining Cdk2 in the HeLa cell line by ICC/IF

(Immunocytochemistry/immunofluorescence).

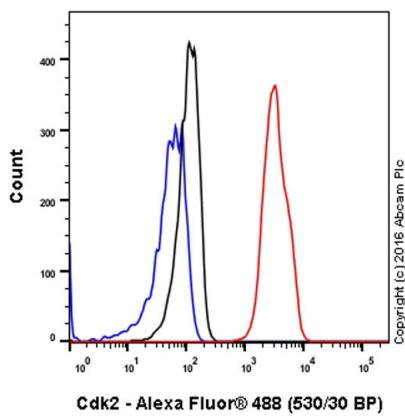
Cells were fixed with 4% Paraformaldehyde permeabilized with 0.1% Triton X-100.

Samples were incubated with primary antibody (1/200). ab150078 (1/500) an Alexa Fluor® 555-conjugated Goat anti-rabbit IgG was used as the secondary antibody. Nuclei were counterstained with DAPI.



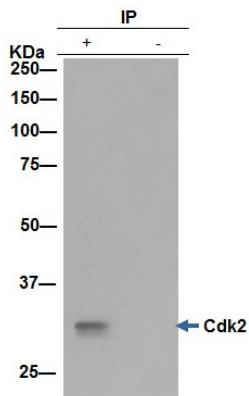
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cdk2 antibody [E304] (ab32147)

ab32147 staining Cdk2 in human tonsil tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed and paraffin-embedded, antigen retrieval was by heat mediation in Tris/EDTA buffer pH9. Samples were incubated with primary antibody (1/50). An undiluted HRP-conjugated mouse anti-rabbit IgG was used as the secondary antibody. Tissue counterstained with Hematoxylin. PBS was used in the negative control rather than the Primary antibody.



Flow Cytometry - Anti-Cdk2 antibody [E304] (ab32147)

Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labelling Cdk2 with purified ab32147 at 1/80 (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/2000) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.

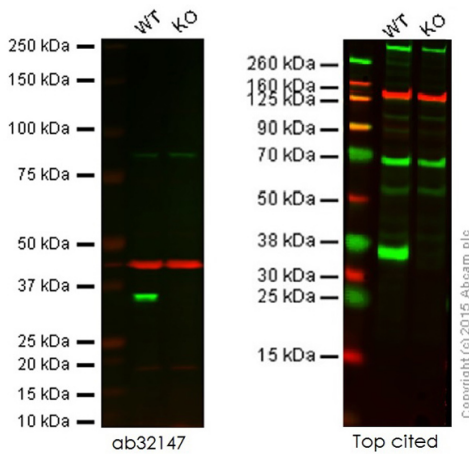


Immunoprecipitation - Anti-Cdk2 antibody [E304]  
(ab32147)

ab32147 (purified) at 1/40  
immunoprecipitating Cdk2 from HeLa  
cells(Lane 1). Lane 2 - PBS. For western  
blotting, a HRP-conjugated anti-rabbit IgG,  
specific to the non-reduced form of IgG was  
used as the secondary antibody (1/1000).

Blocking buffer and concentration: 5%  
NFDm/TBST.

Diluting buffer and concentration: 5% NFDm  
/TBST.



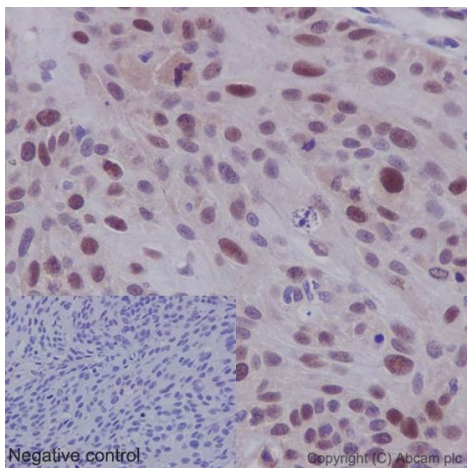
Western blot - Anti-Cdk2 antibody [E304] (ab32147)

**Lanes 1:** Wild-type HAP1 cell lysate (20 µg)

**Lanes 2:** CDK2 knockout HAP1 cell lysate  
(20 µg)

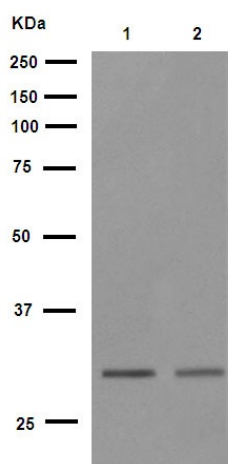
**Lanes 1 - 2:** Merged signal (red and green).  
Green - ab32147 observed at 34 kDa. Red -  
loading control, [ab8226](#), observed at 42 kDa  
or [ab18058](#), observed at 130 kDa.

This western blot image is a comparison  
between ab32147 and a competitor's top  
cited rabbit polyclonal antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cdk2 antibody [E304] (ab32147)

ab32147 staining Cdk2 in human squamous cell carcinoma of cervix tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed and paraffin-embedded, antigen retrieval was by heat mediation in Tris/EDTA buffer pH9. Samples were incubated with primary antibody (1/50). An undiluted HRP-conjugated mouse anti-rabbit IgG was used as the secondary antibody. Tissue counterstained with Hematoxylin. PBS was used in the negative control rather than the Primary antibody.



Western blot - Anti-Cdk2 antibody [E304] (ab32147)

**All lanes :** Anti-Cdk2 antibody [E304] (ab32147) at 1/5000 dilution

**Lane 1 :** C6 cell lysate

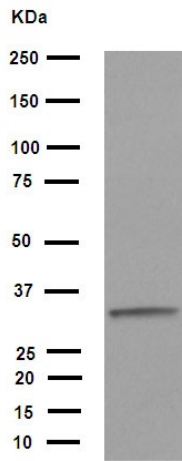
**Lane 2 :** PC-12 cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes :** Goat Anti-Rabbit IgG, (H+L), HRP-conjugated at 1/1000 dilution

**Predicted band size:** 34 kDa



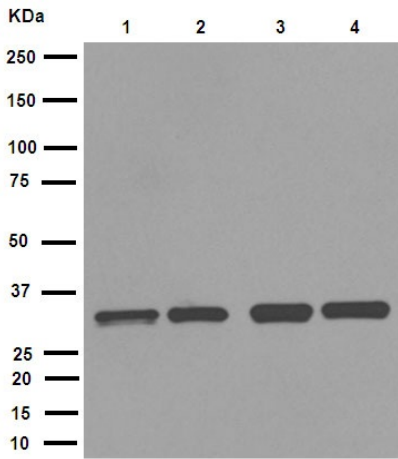
Western blot - Anti-Cdk2 antibody [E304] (ab32147)

Anti-Cdk2 antibody [E304] (ab32147) at  
1/1000 dilution + NIH/3T3 cell lysate at 20 µg

**Secondary**

Goat Anti-Rabbit IgG, (H+L), HRP-conjugated  
at 1/1000 dilution

**Predicted band size:** 34 kDa



Western blot - Anti-Cdk2 antibody [E304] (ab32147)

**All lanes :** Anti-Cdk2 antibody [E304]  
(ab32147) at 1/1000 dilution

**Lane 1 :** Jurkat cell lysate

**Lane 2 :** Hela cell lysate

**Lane 3 :** K562 cell lysate

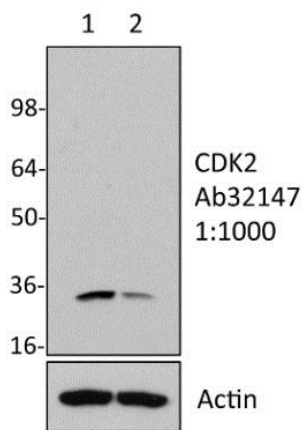
**Lane 4 :** 293 cell lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes :** Goat Anti-Rabbit IgG, (H+L), HRP-  
conjugated at 1/1000 dilution

**Predicted band size:** 34 kDa



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Western blot - Anti-Cdk2 antibody [E304] (ab32147)

This image is courtesy of an Abreview submitted by Sonia Rocha

**All lanes :** Anti-Cdk2 antibody [E304] (ab32147) at 1/1000 dilution (unpurified)

**Lane 1 :** Human osteosarcoma whole cell lysate - control, non-targeting siRNA

**Lane 2 :** Human osteosarcoma whole cell lysate - siRNA for CDK2

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes :** HRP-conjugated goat anti-rabbit IgG polyclonal at 1/2000 dilution

Developed using the ECL technique.

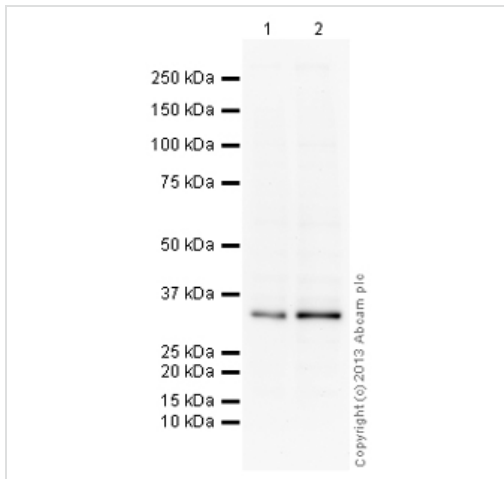
Performed under reducing conditions.

**Predicted band size:** 34 kDa

**Observed band size:** 34 kDa

**Exposure time:** 2 seconds





Western blot - Anti-Cdk2 antibody [E304] (ab32147)

**All lanes :** Anti-Cdk2 antibody [E304] (ab32147) at 1/1000 dilution (unpurified)

**Lane 1 :** HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate (ab27252) at 10 µg

**Lane 2 :** HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate (ab27252) at 20 µg

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 34 kDa

**Observed band size:** 34 kDa

**Exposure time:** 4 minutes

This blot was produced using a 10% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 5% Bovine Serum Albumin before being incubated with ab32147 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution.

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