abcam

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
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	A synthetic peptide corresponding to residues in C-terminus of human Cdk2
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	This product is a recombinant rabbit monoclonal antibody. **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.** A trial size is available to purchase for this antibody. Alternative versions available: Anti-Cdk2 antibody (Alexa Fluor® 647) [E304] (ab206038) Anti-Cdk2 antibody (Alexa Fluor® 555) [E304] (ab208043) Anti-Cdk2 antibody (Alexa Fluor® 568) [E304] (ab208044) Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents

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

	Preservative: 0.01% Sodium azide 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.

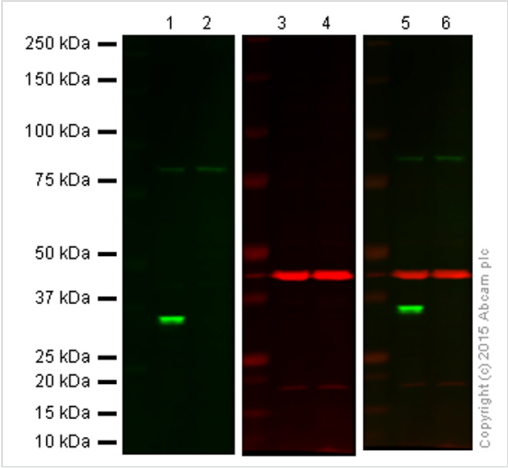
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	Ab评论	说明
ICC/IF	★★★★☆	1/200. **For unpurified use at 1/100.**
IP		1/40.
WB	★★★★★	1/1000 - 1/10000. Detects a band of approximately 33 kDa (predicted molecular weight: 34 kDa).
Flow Cyt		1/80. ab172730-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. See protocols http://www.abcam.com/protocols/ihc-antigen-retrieval-protocol.

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. Contains 1 protein kinase domain.

图片



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

Predicted band size : 34 kDa

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

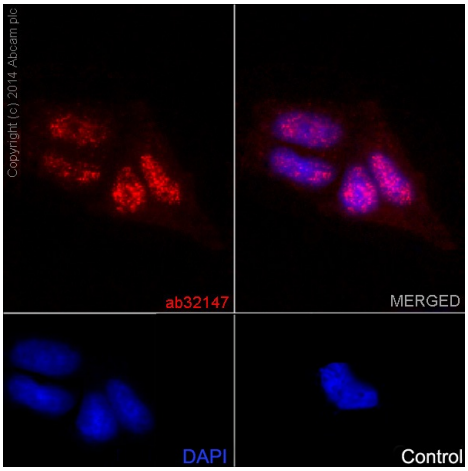
Lanes 2, 4 and 6: CDK2 knockout HAP1 cell lysate (20 µg)

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

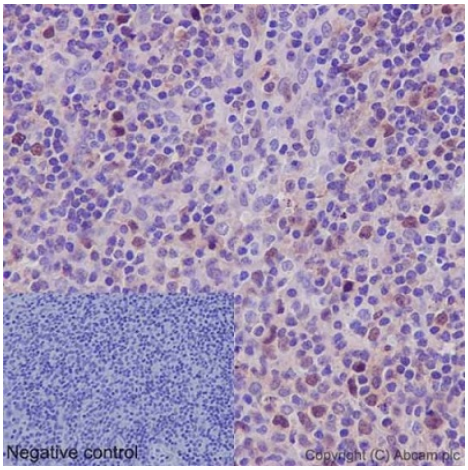
Lanes 5 and 6: Merged (red and green) signal

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 4ºC. 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.



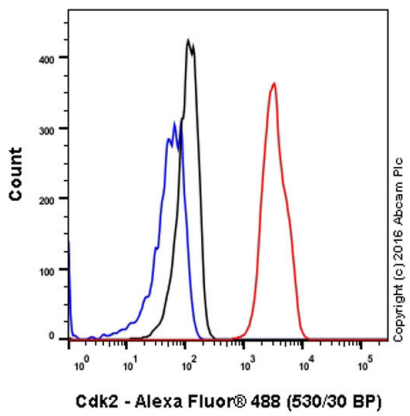
Immunocytochemistry/ Immunofluorescence - Anti-Cdk2 antibody [E304] (ab32147)

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.



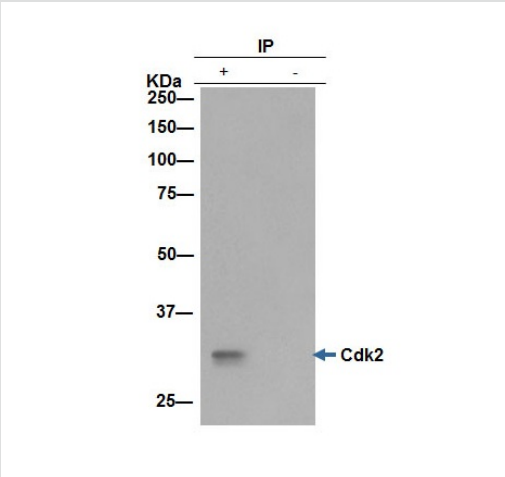
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cdk2 antibody [E304] (ab32147)

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.

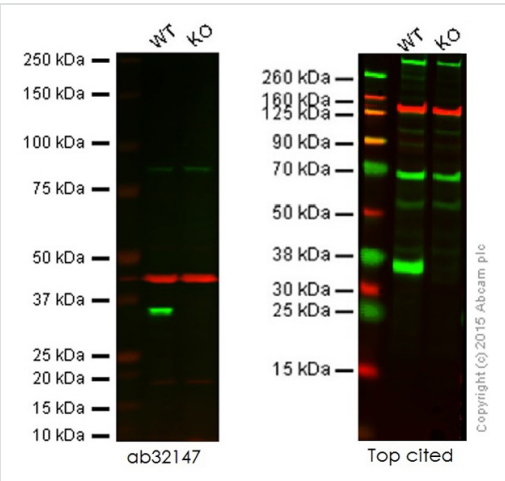


Immunoprecipitation - Anti-Cdk2 antibody [E304] (ab32147)

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.



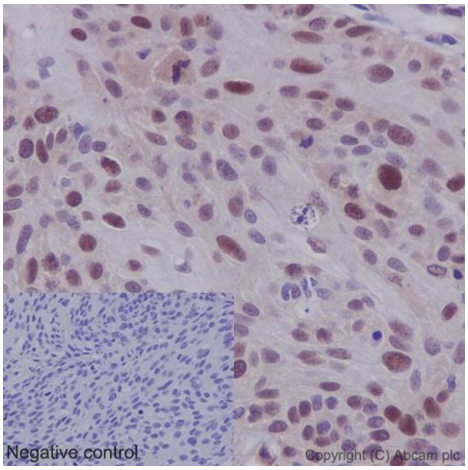
Western blot - Anti-Cdk2 antibody [E304] (ab32147)

Predicted band size : 34 kDa

Lanes 1: Wild-type HAP1 cell lysate (20 µg)
Lanes 2: CDK2 knockout HAP1 cell lysate (20 µg)

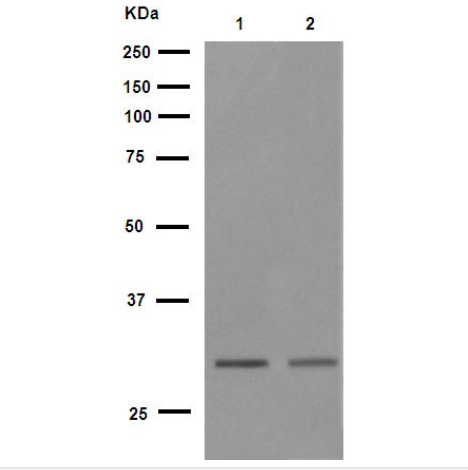
Lanes 1 - 2: Merged signal (red and green). Green - ab32147 observed at 34 kDa. Red - loading control, ab8226, observed at 42 kDa or ab18058, observed at 130 kDa.

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)

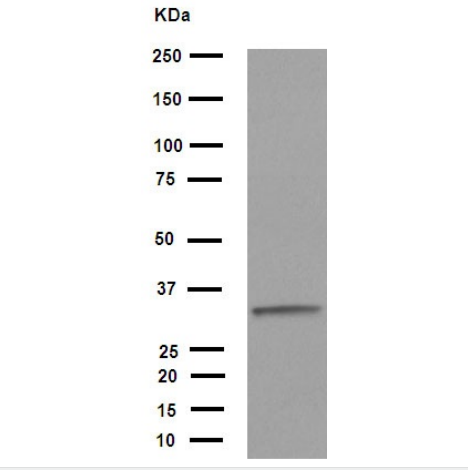
All lanes : Anti-Cdk2 antibody [E304] (ab32147) at 1/5000 dilution

Lane 1 : C6 cell lysate
Lane 2 : PC-12 cell lysate

Lysates/proteins at 10 µg per lane.

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

Predicted band size : 34 kDa

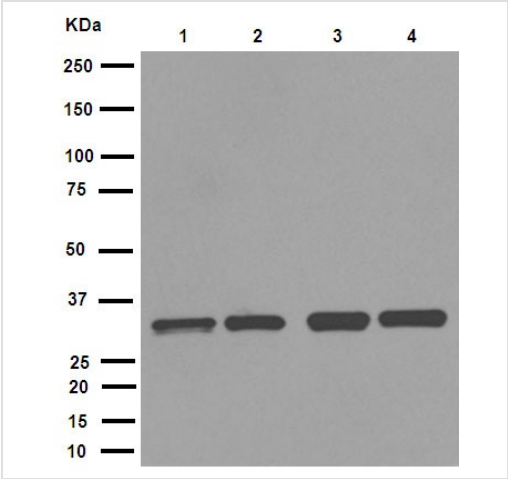


Western blot - Anti-Cdk2 antibody [E304] (ab32147)

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)

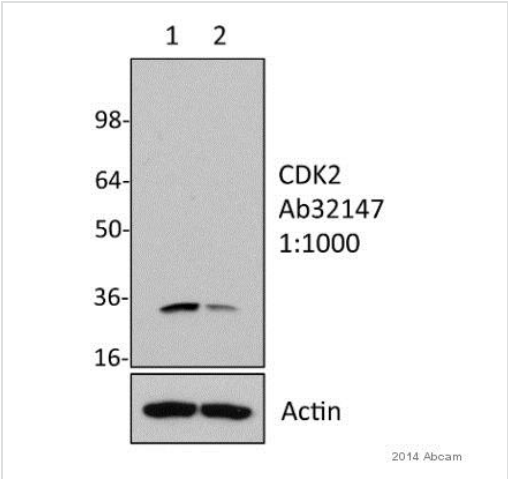
All lanes : Anti-Cdk2 antibody [E304] (ab32147) at 1/1000 dilution

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

Predicted band size : 34 kDa



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.

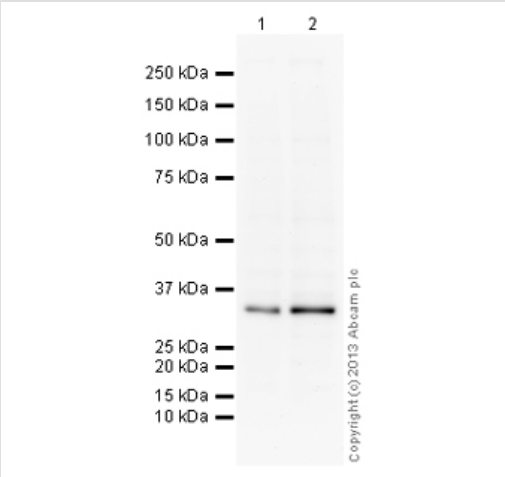
Secondary
HRP-conjugated goat anti-rabbit IgG polyclonal at 1/2000 dilution
Developed using the ECL technique

Performed under reducing conditions.

Predicted band size : 34 kDa
Observed band size : 34 kDa

Exposure time : 2 seconds

This image is courtesy of an Abreview submitted by Sonia Rocha



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
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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