

Anti-Cdk2 antibody [E304] - BSA and Azide free ab208697

KO VALIDATED Recombinant RabMAb

[4 References](#) [9 Images](#)

Overview

Product name	Anti-Cdk2 antibody [E304] - BSA and Azide free
Description	Rabbit monoclonal [E304] to Cdk2 - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: IHC-P, WB, IP, ICC/IF, Flow Cyt (Intra)
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Epitope	The epitope is within the C-terminus of human Cdk2
Positive control	HeLa cells HeLa whole cell lysate (ab150035).
General notes	<p>ab208697 is the carrier-free version of ab32147.</p> <p>Our carrier-free 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 conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <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[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] 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">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

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	E304
Isotype	IgG

Applications

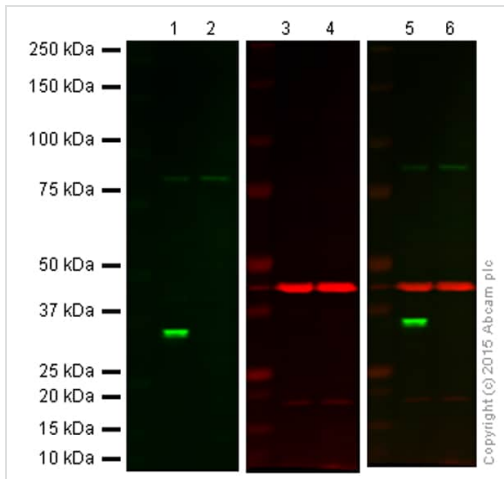
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab208697 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See <u>IHC antigen retrieval protocols</u> .
WB		Use at an assay dependent concentration. Detects a band of approximately 33 kDa (predicted molecular weight: 34 kDa).
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration. ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target

Function	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.
Sequence similarities	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily. Contains 1 protein kinase domain.

Images



Western blot - Anti-Cdk2 antibody [E304] - BSA and Azide free (ab208697)

This WB data was generated using the same anti-Cdk2 antibody clone, E304, in a different buffer formulation (cat# [ab32147](#)).

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

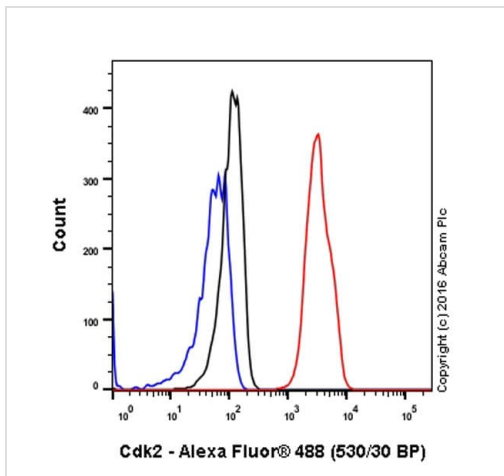
Lanes 2, 4 and 6: CDK2 knockout HAP1 cell lysate (20 µg)

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

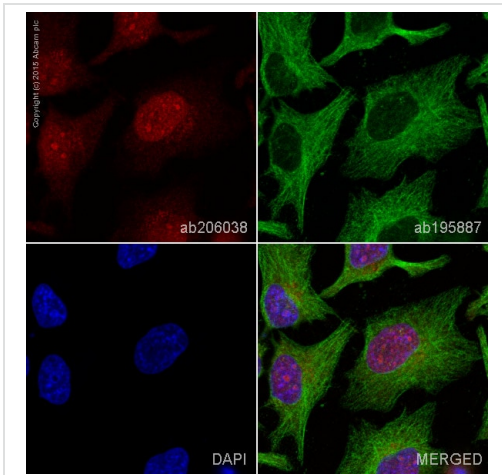
[ab32147](#) was shown to specifically react with CDK2 when CDK2 knockout samples were used. Wild-type and CDK2 knockout samples were subjected to SDS-PAGE. [ab32147](#) and [ab8226](#) (loading control to beta actin) were both diluted 1/1000 and incubated overnight at 4°C. Blots were developed with 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.



Flow Cytometry (Intracellular) - Anti-Cdk2 antibody [E304] - BSA and Azide free (ab208697)

Intracellular 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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab32147](#)).

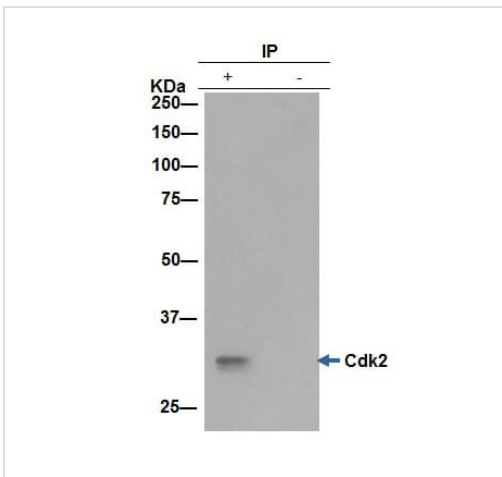


Immunocytochemistry/ Immunofluorescence - Anti-Cdk2 antibody [E304] - BSA and Azide free (ab208697)

Clone E304 (ab208697) has been successfully conjugated by Abcam. This image was generated using Anti-Cdk2 antibody [E304] (Alexa Fluor® 647). Please refer to [ab206038](#) for protocol details.

[ab206038](#) staining Cdk2 in HeLa cells. The cells were fixed with 100% methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with [ab206038](#) at 1/100 dilution (shown in red) and [ab195887](#), Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



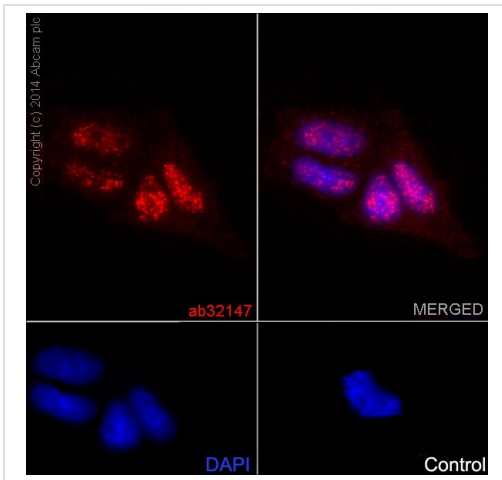
Immunoprecipitation - Anti-Cdk2 antibody [E304] - BSA and Azide free (ab208697)

[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.

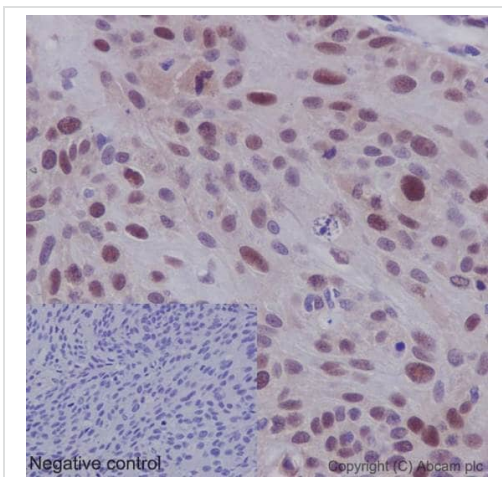
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab32147](#)).



Immunocytochemistry/ Immunofluorescence - Anti-Cdk2 antibody [E304] - BSA and Azide free (ab208697)

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.

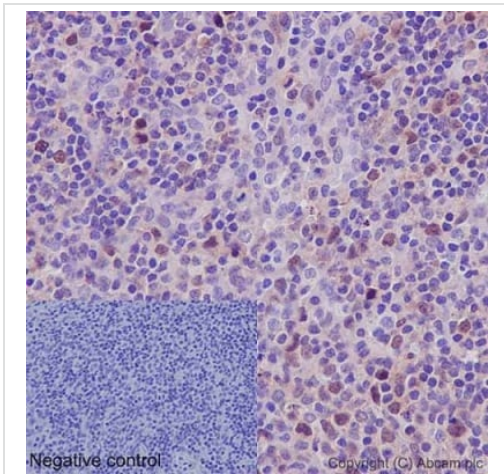
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab32147**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cdk2 antibody [E304] - BSA and Azide free (ab208697)

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.

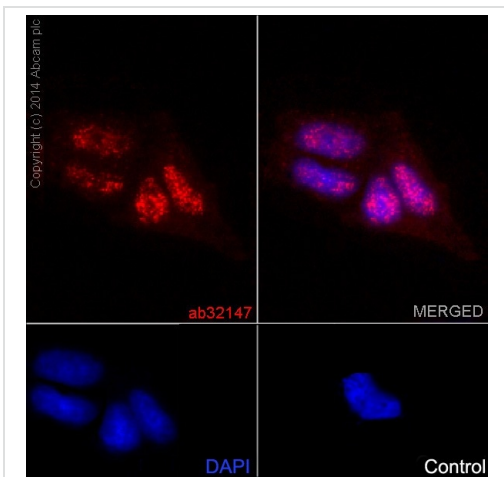
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab32147**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cdk2 antibody [E304] - BSA and Azide free (ab208697)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab32147**).



Immunocytochemistry/ Immunofluorescence - Anti-Cdk2 antibody [E304] - BSA and Azide free (ab208697)

This ICC/IF data was generated using the same anti-Cdk2 antibody clone, E304, in a different buffer formulation (cat# **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.

Why choose a recombinant antibody?



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Anti-Cdk2 antibody [E304] - BSA and Azide free
(ab208697)

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