abcam

Product datasheet

Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and Azide free ab251327



13 Images

Overview

Product name Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and

Azide free

Description Rabbit monoclonal [EPR19546] to CDK1 (phospho T161) + CDK2 (phospho T160) + CDK3

(phospho T160) - BSA and Azide free

Host species Rabbit

Specificity This antibody also recognizes CDK2 (phospho T160) and CDK3 (phospho T160).

Tested applications Suitable for: Dot blot, WB, IHC-P, IP, ICC/IF

Species reactivity Reacts with: Mouse, Rat, Human

Immunogen Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

General notes ab251327 is the carrier-free version of **ab201008**.

Our <u>carrier-free</u> 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.

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.

Use our <u>conjugation kits</u> 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.

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.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information see here.

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Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**[®] **patents**.

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 EPR19546

Isotype IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab251327 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
Dot blot		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 34, 28 kDa (predicted molecular weight: 34 kDa).
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. Recommended for human and rat only.
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.

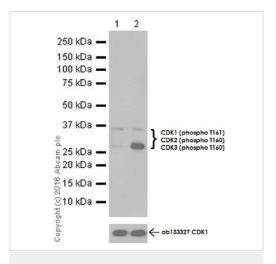
Target

Cellular localization CDK1: Nucleus.

Form CDK1: 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.



Western blot - Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and Azide free (ab251327)

All lanes: Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] (**ab201008**) at 1/1000 dilution

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lane 2: HeLa treated with UV for 90 minutes whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 34 kDa **Observed band size:** 28,34 kDa

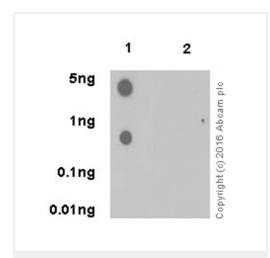
Exposure time: 30 seconds

This data was developed using <u>ab201008</u>, the same antibody clone in a different buffer formulation.

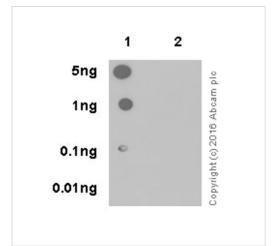
Blocking and dilution buffer: 5% NFDM/TBST.

This data was developed using <u>ab201008</u>, the same antibody clone in a different buffer formulation.

Dot blot analysis of CDK1 (phospho T161) labeled with <u>ab201008</u> at 1/1000 dilution. Lane 1: CDK1 (phospho T161) phospho peptide. Lane 2: CDK1 non-phospho peptide. Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/100000 dilution was used as secondary antibody. Blocking and dilution buffer: 5% NFDM/TBST. Exposure time: 3 minutes.



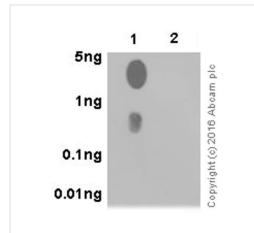
Dot Blot - Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and Azide free (ab251327)



Dot Blot - Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and Azide free (ab251327)

This data was developed using <u>ab201008</u>, the same antibody clone in a different buffer formulation.

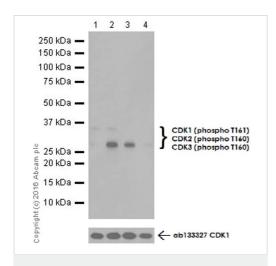
Dot blot analysis of CDK2 (phospho T160) labeled with ab201008 at 1/1000 dilution. Lane 1: CDK2 (phospho T160) phospho peptide. Lane 2: CDK2 non-phospho peptide. Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution was used as secondary antibody. Blocking and dilution buffer: 5% NFDM/TBST. Exposure time: 3 minutes.



Dot Blot - Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and Azide free (ab251327)

This data was developed using <u>ab201008</u>, the same antibody clone in a different buffer formulation.

Dot blot analysis of CDK3 (phospho T160) labeled with ab201008 at 1/1000 dilution. Lane 1: CDK3 (phospho T160) phospho peptide. Lane 2: CDK3 non-phospho peptide. Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution was used as secondary antibody. Blocking and dilution buffer: 5% NFDM/TBST. Exposure time: 3 minutes.



Western blot - Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and Azide free (ab251327)

All lanes: Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] (ab201008) at 1/1000 dilution

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lane 2: HeLa treated with UV for 90 minutes whole cell lysate

Lane 3: HeLa treated with UV for 90 minutes then with alkaline

phosphatase for 1-hour whole cell lysate

Lane 4: HeLa treated with UV for 90 minutes then with alkaline phosphatase overnight whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/100000 dilution

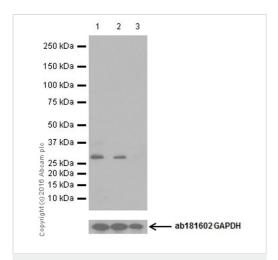
Developed using the ECL technique.

Predicted band size: 34 kDa Observed band size: 28,34 kDa

Exposure time: 15 seconds

This data was developed using <u>ab201008</u>, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.



Western blot - Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and Azide free (ab251327)

All lanes: Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] (ab201008) at 1/1000 dilution

Lane 1: C6 (rat glial tumor cell line) whole cell lysate

Lane 2: C6 treated with alkaline phosphatase for 1 hour whole cell lysate

Lane 3: C6 treated with alkaline phosphatase overnight whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 34 kDa **Observed band size:** 28,34 kDa

Exposure time: 10 seconds

This data was developed using <u>ab201008</u>, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.

All lanes: Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] (ab201008) at 1/1000 dilution

Lane 1 : NIH/3T3 (mouse embryo fibroblast cell line) whole cell lysate

Lane 2: C6 (rat glial tumor cell line) whole cell lysate

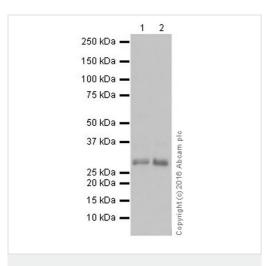
Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 34 kDa



Western blot - Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and Azide free (ab251327)

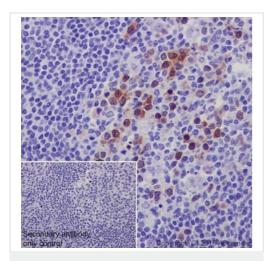
Observed band size: 28 kDa

Exposure time: 3 seconds

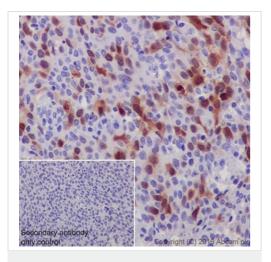
This data was developed using <u>ab201008</u>, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.

This data was developed using <u>ab201008</u>, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling CDK1 (phospho T161) with <u>ab201008</u> at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/500 dilution. Nucleus and weak cytoplasm staining of germinal center from human tonsil is observed. Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/500 dilution. Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

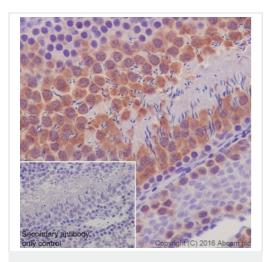


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and Azide free (ab251327)



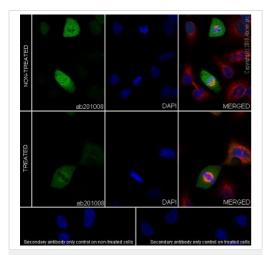
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and Azide free (ab251327)

This data was developed using <u>ab201008</u>, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin-embedded human cervix cancer tissue labeling CDK1 (phospho T161) with <u>ab201008</u> at 1/500 dilution, followed by Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/500 dilution. Nucleus and cytoplasm staining of cancer cells from human cervix cancer is observed [PMID: 15623629]. Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/500 dilution. Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



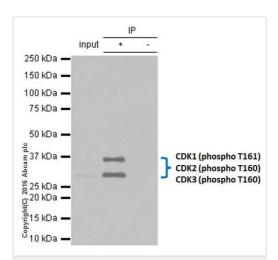
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and Azide free (ab251327)

This data was developed using <u>ab201008</u>, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin-embedded rat testis tissue labeling CDK1 (phospho T161) with <u>ab201008</u> at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/500 dilution. Nucleus and cytoplasm staining of rat testis is observed. Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/500 dilution. Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and Azide free (ab251327)

This data was developed using <u>ab201008</u>, the same antibody clone in a different buffer formulation.Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling CDK1 (phospho T161) with <u>ab201008</u> at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (<u>ab150077</u>) secondary antibody at 1/1000 dilution (green). Confocal image showing specific signal in M phase cells. The signal decreased after treatment with lambda protein phosphatase 31°C for 5 hours. The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-Alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (<u>ab195889</u>) at 1/200 dilution (red). Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (<u>ab150077</u>) at 1/1000 dilution.



Immunoprecipitation - Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and Azide free (ab251327)

This data was developed using <u>ab201008</u>, the same antibody clone in a different buffer formulation.

CDK1 (phospho T161) was immunoprecipitated from 0.35mg of HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate with <u>ab201008</u> at 1/30 dilution. Western blot was performed from the immunoprecipitate using <u>ab201008</u> at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (<u>ab131366</u>), was used for detection at 1/10000 dilution.

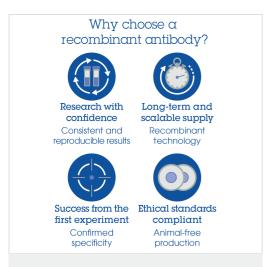
Lane 1: HeLa treated with 25J/m2 UV for 1 hour whole cell lysate 10 μg (Input).

Lane 2: <u>ab201008</u> IP in HeLa treated with 25J/m2 UV for 1 hour whole cell lysate.

Lane 3: Rabbit monoclonal $\lg G (\underline{ab172730})$ instead of $\underline{ab201008}$ in HeLa treated with 25J/m2 UV for 1 hour whole cell lysate.

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure time: 3 minutes.



Anti-CDK1 (phospho T161) + CDK2 / CDK3 (phospho T160) antibody [EPR19546] - BSA and Azide free (ab251327)

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