

## Product datasheet

# Anti-DEK antibody [EPR20401] ab221545

Recombinant RabMAb

[12 Images](#)

### Overview

<b>Product name</b>	Anti-DEK antibody [EPR20401]
<b>Description</b>	Rabbit monoclonal [EPR20401] to DEK
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, ICC/IF, WB, IHC-P, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment within Human DEK aa 50-250. The exact sequence is proprietary. Database link: <a href="#">P35659</a>
<b>Positive control</b>	WB: K562, 293T and HeLa whole cell lysates; Human fetal brain, fetal heart and fetal kidney lysates. IHC-P: Human colon, colon cancer, gastric cancer, lung cancer and breast cancer tissues. ICC/IF: HeLa, HEK-293T and K562 cells. Flow Cyt: K562 cells. IP: HeLa whole cell lysate.
<b>General notes</b>	Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .  This product is a <a href="#">recombinant rabbit monoclonal antibody</a> .

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, 0.05% BSA, PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR20401
<b>Isotype</b>	IgG

### Applications

Our [Abpromise guarantee](#) covers the use of **ab221545** in the following tested applications.

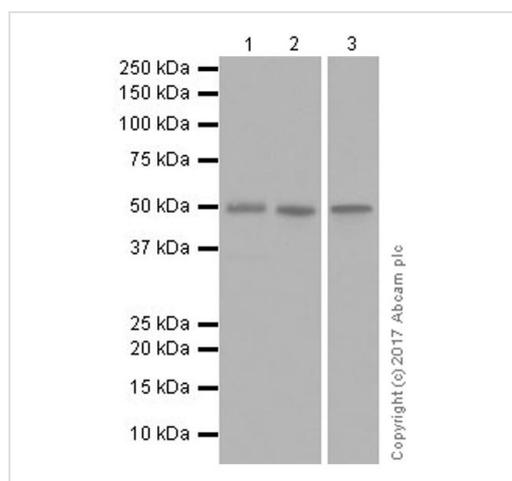
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		1/500.
ICC/IF		1/500.
WB		1/2000. Detects a band of approximately 50 kDa (predicted molecular weight: 42 kDa).
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		1/30.

## Target

<b>Function</b>	Involved in chromatin organization.
<b>Tissue specificity</b>	Ubiquitous. Expressed at relatively high levels.
<b>Involvement in disease</b>	A chromosomal aberration involving DEK is found in a subset of acute myeloid leukemia (AML); also known as acute non-lymphocytic leukemia (PubMed:1549122). Translocation t(6;9)(p23;q34) with NUP214/CAN (PubMed:1549122). It results in the formation of a DEK-NUP214 fusion gene (PubMed:1549122).
<b>Sequence similarities</b>	Contains 1 SAP domain.
<b>Post-translational modifications</b>	Phosphorylated by CK2. Phosphorylation fluctuates during the cell cycle with a moderate peak during G(1) phase, and weakens the binding of DEK to DNA.
<b>Cellular localization</b>	Nucleus. Enriched in regions where chromatin is decondensed or sparse in the interphase nuclei.

## Images



Western blot - Anti-DEK antibody [EPR20401] (ab221545)

**Lanes 1-2** : Anti-DEK antibody [EPR20401] (ab221545) at 1/2000 dilution

**Lane 3** : Anti-DEK antibody [EPR20401] (ab221545) at 1/10000 dilution

**Lane 1** : K562 (human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate

**Lane 2** : 293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

**Lane 3** : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lysates/proteins at 20 µg per lane.

## Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Developed using the ECL technique.

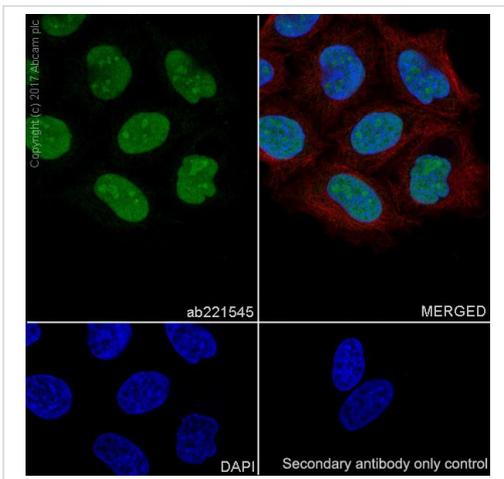
**Predicted band size:** 42 kDa

**Observed band size:** 50 kDa

[why is the actual band size different from the predicted?](#)

Blocking/Dilution buffer: 5% NFDN/TBST.

Exposure time: Lane 1-2: 2 seconds; Lane 3: 3 seconds.

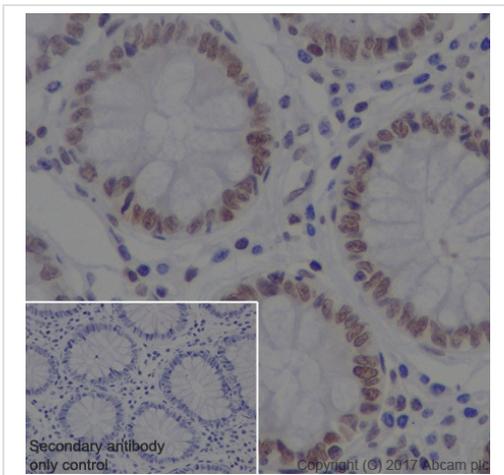


Immunocytochemistry/ Immunofluorescence - Anti-DEK antibody [EPR20401] ([ab221545](#))

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling DEK with [ab221545](#) at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor<sup>®</sup> 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear and weak cytoplasmic staining on HeLa cell line.

The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor<sup>®</sup> 594) ([ab195889](#)) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor<sup>®</sup> 488) ([ab150077](#)) secondary antibody at 1/1000 dilution.

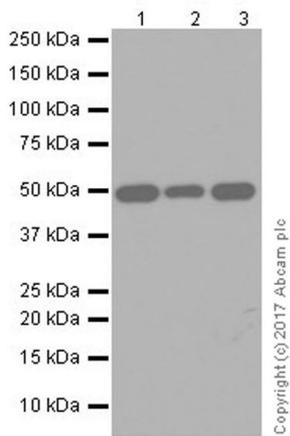


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DEK antibody [EPR20401] ([ab221545](#))

Immunohistochemical analysis of paraffin-embedded human colon tissue labeling DEK with [ab221545](#) at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on human colon is observed (PMID: 23902796). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-DEK antibody [EPR20401] (ab221545)

**All lanes** : Anti-DEK antibody [EPR20401] (ab221545) at 1/2000 dilution

**Lane 1** : Human fetal brain lysate

**Lane 2** : Human fetal heart lysate

**Lane 3** : Human fetal kidney lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes** : Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/4000 dilution

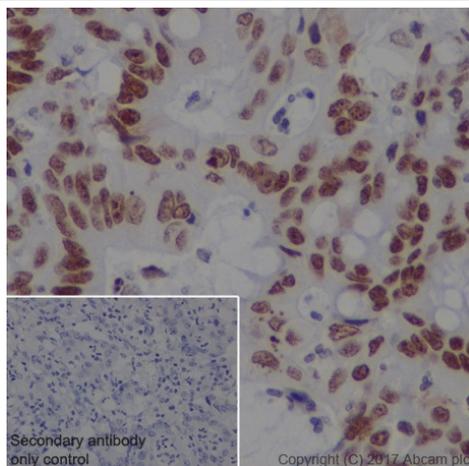
Developed using the ECL technique.

**Predicted band size:** 42 kDa

**Observed band size:** 50 kDa [why is the actual band size different from the predicted?](#)

**Exposure time:** 3 minutes

Blocking/Dilution buffer: 5% NFDm/TBST.

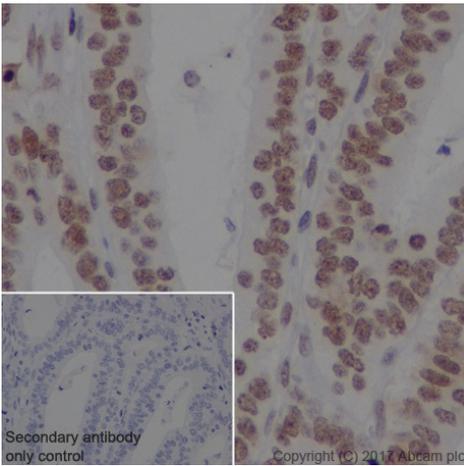


Immunohistochemical analysis of paraffin-embedded human colon cancer tissue labeling DEK with ab221545 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Strong nuclear staining on human colon cancer is observed (PMID: 23902796). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DEK antibody [EPR20401] (ab221545)

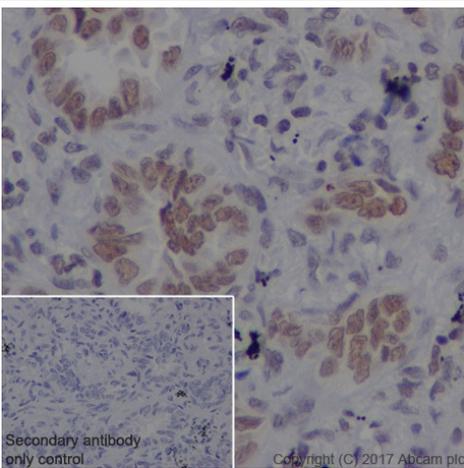


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DEK antibody [EPR20401] (ab221545)

Immunohistochemical analysis of paraffin-embedded human gastric cancer tissue labeling DEK with ab221545 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on human gastric cancer is observed (PMID: 26998084). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

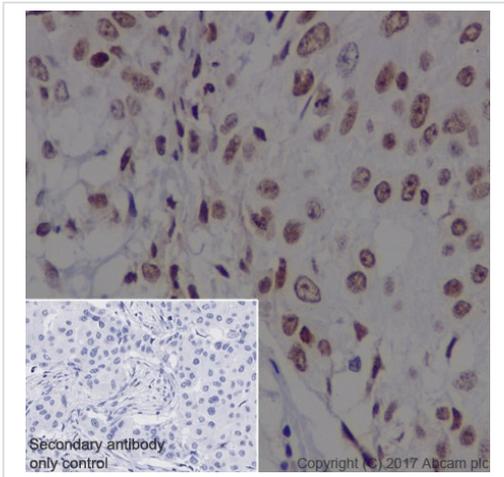


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DEK antibody [EPR20401] (ab221545)

Immunohistochemical analysis of paraffin-embedded human lung cancer tissue labeling DEK with ab221545 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on human lung cancer 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) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

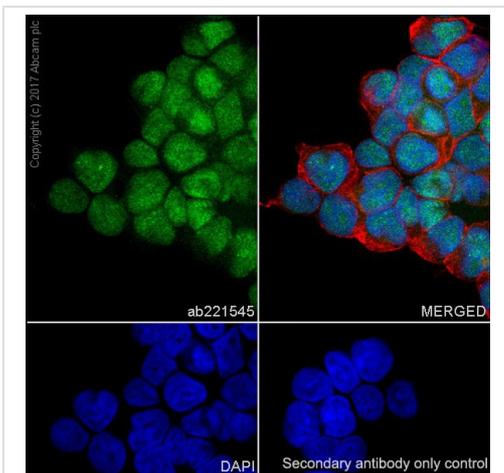


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DEK antibody [EPR20401] (ab221545)

Immunohistochemical analysis of paraffin-embedded human breast cancer tissue labeling DEK with ab221545 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Weak cytoplasmic and strong nuclear staining on human breast cancer is observed (PMID: 26459608). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

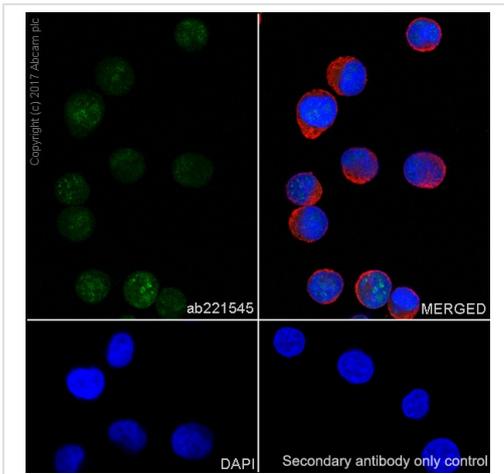


Immunocytochemistry/ Immunofluorescence - Anti-DEK antibody [EPR20401] (ab221545)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) cells labeling DEK with ab221545 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear and weak cytoplasmic staining on HEK-293T cell line.

The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

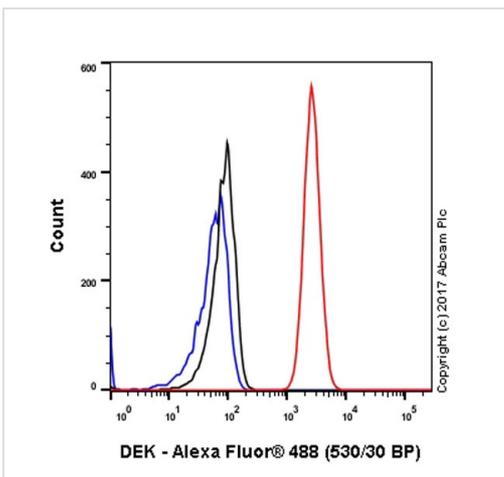


Immunocytochemistry/ Immunofluorescence - Anti-DEK antibody [EPR20401] (ab221545)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized K562 (human chronic myelogenous leukemia cell line from bone marrow) cells labeling DEK with ab221545 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear and weak cytoplasmic staining on K562 cell line.

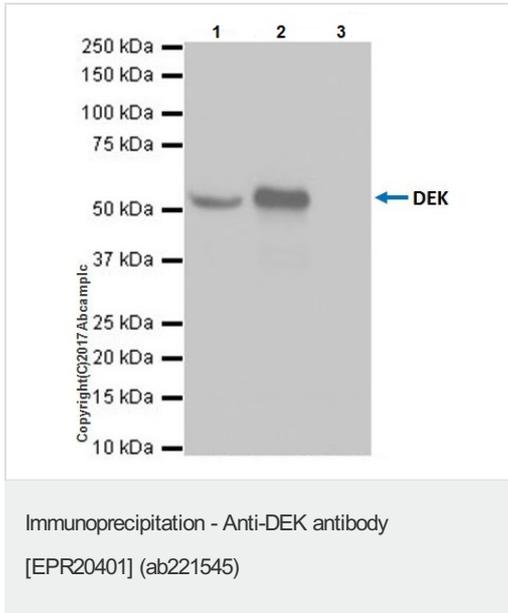
The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.



Flow Cytometry - Anti-DEK antibody [EPR20401] (ab221545)

Flow cytometric analysis of 4% paraformaldehyde-fixed K562 (human chronic myelogenous leukemia cell line from bone marrow) cell line labeling DEK with ab221545 at 1/500 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.



DEK was immunoprecipitated from 0.35 mg of HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab221545 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab221545 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10000 dilution.

Lane 1: HeLa whole cell lysate 10 µg (Input).

Lane 2: ab221545 IP in HeLa whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab221545 in HeLa whole cell lysate.

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

Exposure time: 3 seconds.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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