

Product datasheet

Anti-IKB beta antibody [EPR5037] ab109509

KO VALIDATED

Recombinant

RabMAb

★★★★☆ 2 Abreviews 10 References 9 Images

Overview

Product name	Anti-IKB beta antibody [EPR5037]
Description	Rabbit monoclonal [EPR5037] to IKB beta
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, Flow Cyt (Intra), WB, IP, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Jurkat, HeLa, THP-1, and MCF7 cell lysates. IP: HeLa cells. IHC-P: Human kidney tissue. ICC/IF: Jurkat cells. Flow Cyt (intra): Jurkat cells.
General notes	<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> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR5037

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab109509 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
ICC/IF		1/50. For unpurified use at 1/100 - 1/250.
Flow Cyt (Intra)		1/20.
WB	★★★★★ (2)	1/1000 - 1/10000. Detects a band of approximately 48 kDa (predicted molecular weight: 37 kDa).
IP		1/10 - 1/100.
IHC-P		1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. See IHC antigen retrieval protocols . For unpurified use at 1/100 - 1/250.

Target

Function

Inhibits NF-kappa-B by complexing with and trapping it in the cytoplasm. However, the unphosphorylated form resynthesized after cell stimulation is able to bind NF-kappa-B allowing its transport to the nucleus and protecting it to further NFKBIA-dependent inactivation. Association with inhibitor kappa B-interacting NKIRAS1 and NKIRAS2 prevent its phosphorylation rendering it more resistant to degradation, explaining its slower degradation.

Tissue specificity

Expressed in all tissues examined.

Sequence similarities

Belongs to the NF-kappa-B inhibitor family.
Contains 6 ANK repeats.

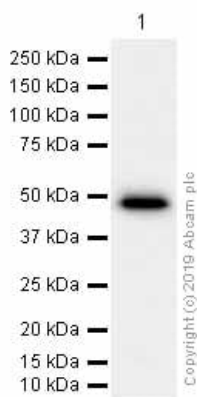
Post-translational modifications

Phosphorylated by RPS6KA1; followed by degradation. Interaction with NKIRAS1 and NKIRAS2 probably prevents phosphorylation.

Cellular localization

Cytoplasm. Nucleus.

Images



Western blot - Anti-IKB beta antibody [EPR5037]
(ab109509)

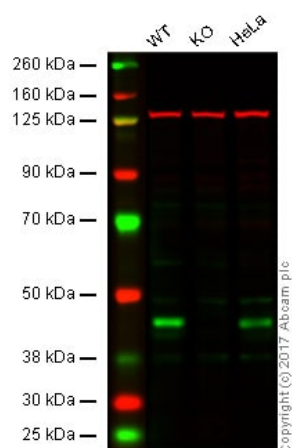
Anti-IKB beta antibody [EPR5037] (ab109509) at 1/1000 dilution
(Purified) + HeLa (Human cervix adenocarcinoma epithelial cell)
whole cell lysates at 15 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 37 kDa

Observed band size: 48 kDa



Western blot - Anti-IKB beta antibody [EPR5037]
(ab109509)

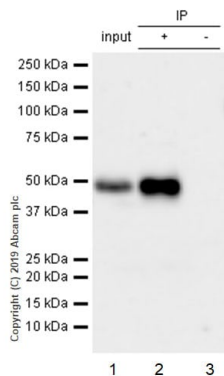
Lane 1: Wild type HAP1 whole cell lysate (20 µg)

Lane 2: IKB beta knockout HAP1 whole cell lysate (20 µg)

Lane 3: HeLa whole cell lysate (20 µg)

Lanes 1 - 3: Merged signal (red and green). Green -
unpurified ab109509 observed at 45 kDa. Red - loading control,
[ab18058](#), observed at 130 kDa.

ab109509 was shown to specifically react with IKB beta in wild type
cells as signal was lost in IKB beta knockout cells. Wild-type and
IKB beta knockout samples were subjected to SDS-PAGE.
ab109509 and [ab18058](#) (Mouse anti-Vinculin loading control) were
incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution
respectively. Blots were developed with Goat anti-Rabbit IgG H&L
(IRDye® 800CW) preabsorbed [ab216773](#) and Goat anti-Mouse
IgG H&L (IRDye® 680RD) preabsorbed [ab216776](#) secondary
antibodies at 1/20000 dilution for 1 hour at room temperature
before imaging.



Immunoprecipitation - Anti-IKB beta antibody
[EPR5037] (ab109509)

ab109509 (purified) at 1:20 dilution (1 µg) immunoprecipitating IKB beta in HeLa whole cell lysate.

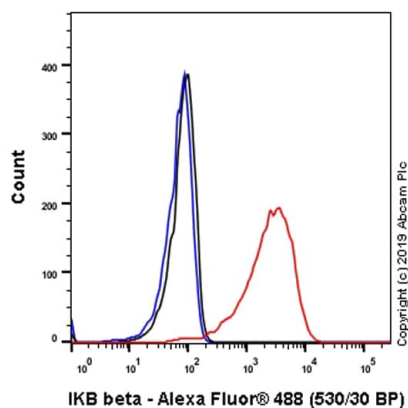
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10ug

Lane 2 (+): ab109509 & HeLa whole cell lysate

Lane 3 (-): Rabbit monoclonal IgG ([ab172730](#)) instead of ab109509 in HeLa whole cell lysate

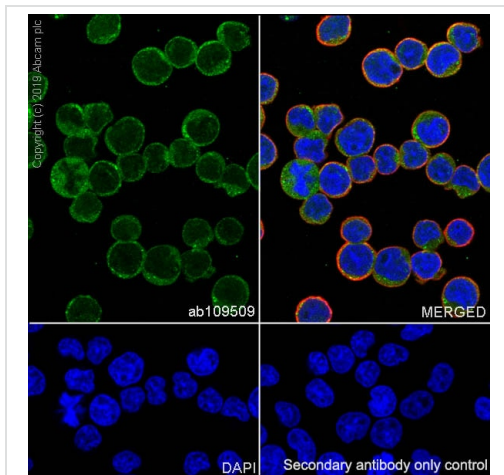
For western blotting, VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) was used at 1:1000 dilution.

Blocking and diluting buffer: 5% NFDM/TBST.



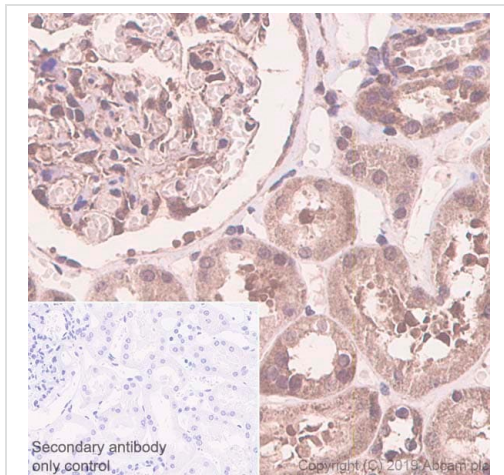
Flow Cytometry (Intracellular) - Anti-IKB beta
antibody [EPR5037] (ab109509)

Intracellular Flow Cytometry analysis of Jurkat (Human T cell leukemia T lymphocyte) cells labeling IKB beta with purified ab109509 at 1/20 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



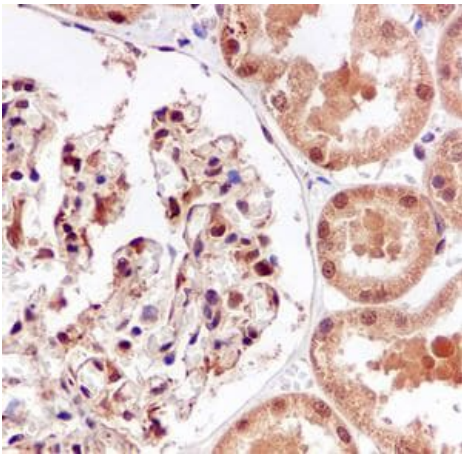
Immunocytochemistry/ Immunofluorescence - Anti-IKB beta antibody [EPR5037] (ab109509)

Immunocytochemistry/ Immunofluorescence analysis of Jurkat (Human T cell leukemia T lymphocyte) cells labeling IKB beta with purified ab109509 at 1:50 dilution (2.0 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IKB beta antibody [EPR5037] (ab109509)

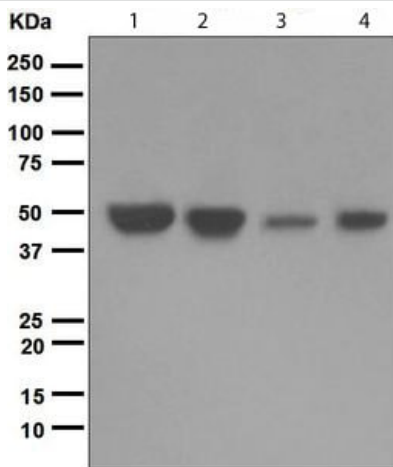
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue sections labeling IKB beta with purified ab109509 at 1:500 dilution (0.20 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti- IKB beta antibody [EPR5037] (ab109509)

Immunohistochemical analysis of paraffin-embedded Human kidney tissue using unpurified ab109509 at a dilution of 1/100.

Heat mediated antigen retrieval was performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti- IKB beta antibody [EPR5037] (ab109509)

All lanes : Anti- IKB beta antibody [EPR5037] (ab109509) at 1/1000 dilution (Unpurified)

Lane 1 : Jurkat cell lysate

Lane 2 : HeLa cell lysate

Lane 3 : THP-1 cell lysate

Lane 4 : MCF7 cell lysate

Lysates/proteins at 10 μg per lane.

Predicted band size: 37 kDa

Observed band size: 48 kDa

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-IKB beta antibody [EPR5037] (ab109509)

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

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