

Product datasheet

Anti-IKK beta antibody [EPR6043] - BSA and Azide free ab171364


KO VALIDATED

Recombinant

RabMAb

6 Images

Overview

Product name	Anti-IKK beta antibody [EPR6043] - BSA and Azide free
Description	Rabbit monoclonal [EPR6043] to IKK beta - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P Unsuitable for: Flow Cyt (Intra), ICC/IF or IP
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rat 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	<p>ab171364 is the carrier-free version of ab124957.</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>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	Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6043
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab171364 in the following tested applications.

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

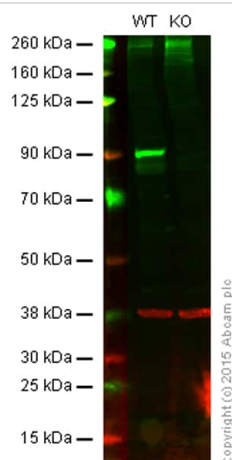
Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 85 kDa (predicted molecular weight: 87 kDa). Can be blocked with <u>ab154148</u>
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. (Heat to 98°C, allow to cool for 10-20 minutes)

Application notes Is unsuitable for Flow Cyt (Intra), ICC/IF or IP.

Target

Function	Acts as part of the IKK complex in the conventional pathway of NF-kappa-B activation and phosphorylates inhibitors of NF-kappa-B thus leading to the dissociation of the inhibitor/NF-kappa-B complex and ultimately the degradation of the inhibitor. Also phosphorylates NCOA3.
Tissue specificity	Highly expressed in heart, placenta, skeletal muscle, kidney, pancreas, spleen, thymus, prostate, testis and peripheral blood.
Sequence similarities	Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. I-kappa-B kinase subfamily. Contains 1 protein kinase domain.
Post-translational modifications	Upon cytokine stimulation, phosphorylated on Ser-177 and Ser-181 by MEKK1 and/or MAP3K14/NIK; which enhances activity. Once activated, autophosphorylates on the C-terminal serine cluster; which decreases activity and prevents prolonged activation of the inflammatory response. Acetylation of Thr-180 by Yersinia yopJ prevents phosphorylation and activation, thus blocking the I-kappa-B pathway. Ubiquitinated. Monoubiquitination involves TRIM21 that leads to inhibition of Tax-induced NF-kappa-B signaling. According to PubMed:19675099, 'Ser-163' does not serve as a monoubiquitination site. According to PubMed:16267042, ubiquitination on 'Ser-163' modulates phosphorylation on C-terminal serine residues. Monoubiquitination by TRIM21 is disrupted by Yersinia yopJ.
Cellular localization	Cytoplasm. Membrane raft. Colocalized with DPP4 in membrane rafts.

Images



Western blot - Anti-IKK beta antibody [EPR6043] - BSA and Azide free (ab171364)

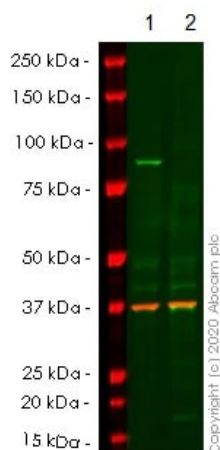
This WB data was generated using the same anti-IKK beta antibody clone [EPR6043] in a different buffer formulation (cat# [ab124957](#)).

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

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

Lanes 1 and 2: Merged signal (red and green). Green - [ab124957](#) observed at 90 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

[ab124957](#) was shown to specifically react with IKK beta when IKK beta knockout samples were used. Wild-type and IKK beta knockout samples were subjected to SDS-PAGE. [ab124957](#) and [ab8245](#) (loading control to GAPDH) were diluted 1/500 and 1/2000 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.



Western blot - Anti-IKK beta antibody [EPR6043] - BSA and Azide free (ab171364)

All lanes : Anti-IKK beta antibody [EPR6043] ([ab124957](#)) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate

Lane 2 : IKKβ CRISPR/Cas9 edited HeLa cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 87 kDa

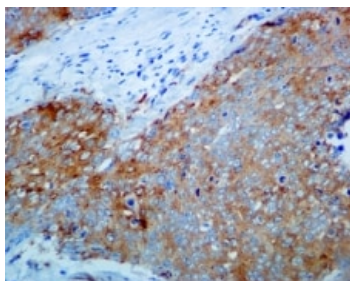
Observed band size: 90 kDa

This data was developed using the same antibody clone in a different buffer formulation ([ab124957](#)).

Lanes 1-2: Merged signal (red and green). Green - [ab124957](#) observed at 90 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) observed at 37 kDa.

[ab124957](#) was shown to react with IKK beta in wild-type HeLa cells

in western blot. The band observed in CRISPR/Cas9 edited cell line **ab264847** (CRISPR/Cas9 edited cell lysate **ab257228**) lane below 90kDa may represent truncated forms and cleaved fragments. This has not been investigated further. Wild-type HeLa and IKK β CRISPR/Cas9 edited HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. **ab124957** and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at a 1 in 500 dilution and a 1 in 20000 dilution respectively. 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 in 20000 dilution for 1 hour at room temperature before imaging.

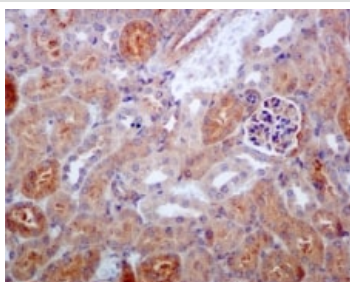


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IKK beta antibody [EPR6043] - BSA and Azide free (ab171364)

ab124957, at 1/100 dilution staining IKK beta in paraffin-embedded Human cervix carcinoma tissue, by Immunohistochemistry.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab124957**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

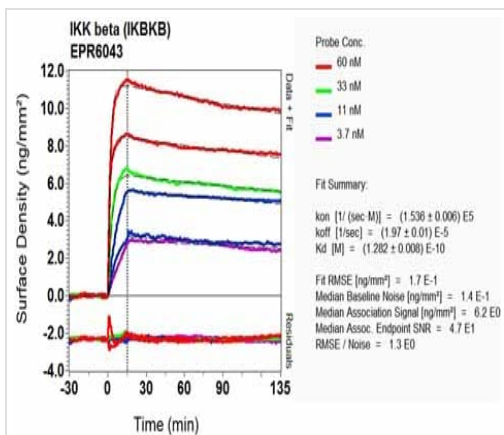


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IKK beta antibody [EPR6043] - BSA and Azide free (ab171364)

ab124957, at 1/100 dilution staining IKK beta in paraffin-embedded Mouse kidney tissue, by Immunohistochemistry.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab124957**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



SPR Scanning - Anti-IKK beta antibody [EPR6043]
- BSA and Azide free (ab171364)

Equilibrium dissociation constant (K_D)

Learn more about K_D

[Click here to learn more about \$K_D\$](#)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab124957](#)).

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-IKK beta antibody [EPR6043] - BSA and Azide free (ab171364)

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

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