

Anti-IKB alpha (phospho S36) antibody [EPR6235(2)] - BSA and Azide free ab240059

Recombinant RabMAb

[4 Images](#)

Overview

Product name	Anti-IKB alpha (phospho S36) antibody [EPR6235(2)] - BSA and Azide free
Description	Rabbit monoclonal [EPR6235(2)] to IKB alpha (phospho S36) - BSA and Azide free
Host species	Rabbit
Specificity	This antibody detects IKB alpha only when phosphorylated at Serine 36. Stimulation may be required to allow detection of the phosphorylated protein due to low levels of endogenous expression. Please see images below for recommended treatment conditions and positive controls.
Tested applications	Suitable for: Flow Cyt (Intra), WB
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	HeLa cells treated with FBS and Calyculin A.
General notes	<p>ab240059 is the carrier-free version of ab133462.</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

For more information [see here](#).

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	EPR6235(2)
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab240059 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 (Intra)		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 40 kDa (predicted molecular weight: 35 kDa).

Target

Function	Inhibits the activity of dimeric NF-kappa-B/REL complexes by trapping REL dimers in the cytoplasm through masking of their nuclear localization signals. On cellular stimulation by immune and proinflammatory responses, becomes phosphorylated promoting ubiquitination and degradation, enabling the dimeric RELA to translocate to the nucleus and activate transcription.
Involvement in disease	Ectodermal dysplasia, anhidrotic, with T-cell immunodeficiency autosomal dominant
Sequence similarities	Belongs to the NF-kappa-B inhibitor family. Contains 5 ANK repeats.
Post-translational modifications	Phosphorylated; disables inhibition of NF-kappa-B DNA-binding activity. Phosphorylation at positions 32 and 36 is prerequisite to recognition by UBE2D3 leading to polyubiquitination and subsequent degradation. Sumoylated; sumoylation requires the presence of the nuclear import signal. Sumoylation blocks ubiquitination and proteasome-mediated degradation of the protein thereby increasing the protein stability. Monoubiquitinated at Lys-21 and/or Lys-22 by UBE2D3. Ubiquitin chain elongation is then performed by CDC34 in cooperation with the SCF(FBXW11) E3 ligase complex, building

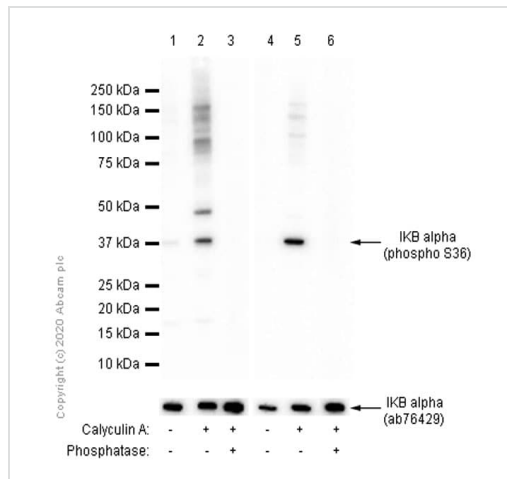
ubiquitin chains from the UBE2D3-primed NFKBIA-linked ubiquitin. The resulting polyubiquitination leads to protein degradation. Also ubiquitinated by SCF(BTRC) following stimulus-dependent phosphorylation at Ser-32 and Ser-36.

Deubiquitinated by porcine reproductive and respiratory syndrome virus Nsp2 protein, which thereby interferes with NFKBIA degradation and impairs subsequent NF-kappa-B activation.

Cellular localization

Cytoplasm. Nucleus. Shuttles between the nucleus and the cytoplasm by a nuclear localization signal (NLS) and a CRM1-dependent nuclear export.

Images



Western blot - Anti-IκB alpha (phospho S36) antibody [EPR6235(2)] - BSA and Azide free (ab240059)

All lanes : Anti-IκB alpha (phospho S36) antibody [EPR6235(2)] ([ab133462](#)) at 1/1000 dilution (Purified)

Lane 1 : NIH/3T3 (Mouse embryonic fibroblast) starved for 24 hours

Lane 2 : NIH/3T3 (Mouse embryonic fibroblast) starved for 24 hours then treated with 100nM Calyculin A for 30 minutes

Lane 3 : NIH/3T3 (Mouse embryonic fibroblast) starved for 24 hours then treated with 100nM Calyculin A for 30 minutes, then the membrane treated with Alkaline Phosphatase for 1 hour

Lane 4 : Untreated C6 (Rat glial tumor glial cell)

Lane 5 : C6 (Rat glial tumor glial cell) treated with 100ng/ml Calyculin A for 60 minutes

Lane 6 : C6 (Rat glial tumor glial cell) treated with 100ng/ml Calyculin A for 60 minutes, then the membrane treated with Alkaline Phosphatase for 1 hour

Lysates/proteins at 15 µg per lane.

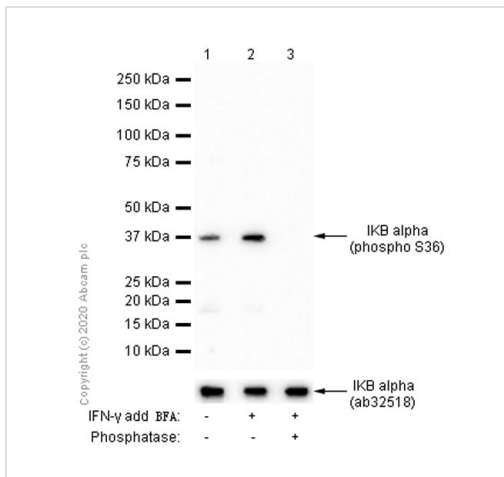
Secondary

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

Predicted band size: 35 kDa

Observed band size: 40 kDa

This data was developed using [ab133462](#) the same antibody clone in a different buffer formulation.



Western blot - Anti-IκB alpha (phospho S36) antibody [EPR6235(2)] - BSA and Azide free (ab240059)

All lanes : Anti-IκB alpha (phospho S36) antibody [EPR6235(2)] ([ab133462](#)) at 1/1000 dilution (Purified)

Lane 1 : Untreated THP-1 (Human monocytic leukemia monocyte)

Lane 2 : THP-1 (Human monocytic leukemia monocyte) treated with 100ng/ml IFN-gamma for 24 hours, then 300ng/ml Brefeldin A added and treated for another 20 hours

Lane 3 : THP-1 (Human monocytic leukemia monocyte) treated with 100ng/ml IFN-gamma for 24 hours, then 300ng/ml Brefeldin A added and treated for another 20 hours, then the membrane treated with Alkaline Phosphatase for 1 hour

Lysates/proteins at 15 µg per lane.

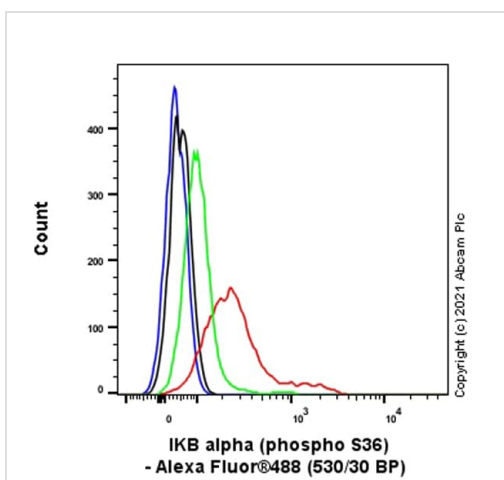
Secondary

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

Predicted band size: 35 kDa

Observed band size: 40 kDa

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Flow Cytometry (Intracellular) - Anti-IκB alpha (phospho S36) antibody [EPR6235(2)] - BSA and Azide free (ab240059)

This data was developed using [ab133462](#) the same antibody clone in a different buffer formulation.

Intracellular flow cytometric analysis of 4% Paraformaldehyde fixed 90% Methanol permeabilized HeLa (Human cervix adenocarcinoma epithelial cell) treated with 1% FBS for 3 hours then 100 nM Calyculin A for 10 minutes labelling IκB alpha (phospho S36) with [ab133462](#) at 1/100 dilution (1µg/ml) compared with a Rabbit monoclonal IgG (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) at 1/2000 was used as the secondary antibody. Untreated control: Green

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 alpha (phospho S36) antibody

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