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Datasheet for 100-4167C

IKB alpha Antibody

Overview

Description:	Anti-IKBα C-terminal (RABBIT) Antibody - 100-4167C
Item No.:	100-4167C
Size:	100 µL
Applications:	WB, EMSA
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Anti-IKB alpha Antibody detects IkBa. I-kappa-B-alpha 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, IKBA becomes phosphorylated promoting ubiquitination and degradation, enabling the dimeric RELA to translocate to the nucleus and activate transcription. Anti-IKBa Antibody is ideal for investigators involved in Cell Signaling, Neuroscience, Signal Transduction and Immunology research.
Synonyms:	rabbit anti-IKB alpha Antibody, IkappaBalpha antibody, IKBA antibody, IKBalpha antibody, MAD3 antibody, NF kappa B inhibitor alpha antibody, NFKBI antibody, NFKBIA antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Gene Name:	NFKBIA
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide
Immunogen:	IKB alpha Antibody was produced by repeated immunizations with a synthetic IkBa peptide corresponding to a region near the C-terminus of the human protein.

Purity/Specificity:	IKB alpha Antibody was prepared from monospecific antiserum by delipidation and defibrination. Anti- IkBa may react non-specifically with other proteins. Control peptide (code #100-4167P) will compete only with the specific reaction of antiserum with IkBa.
Relevant Links:	• NCBI - CAB65556.2 • UniProtKB - P25963 • GeneID - 4792

Application Details

Tested Applications:	WB
Suggested Applications:	EMSA (Based on references)
Application Note:	Anti-IkBa Antibody has been tested by western blot and is suitable for ELISA, and IHC. Researchers should determine optimal titers for applications that are not stated below.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:20,000 - 1:100,000
IHC:	1:1,000 - 1:5,000
WB:	1:2,000 - 1:10,000

Formulation

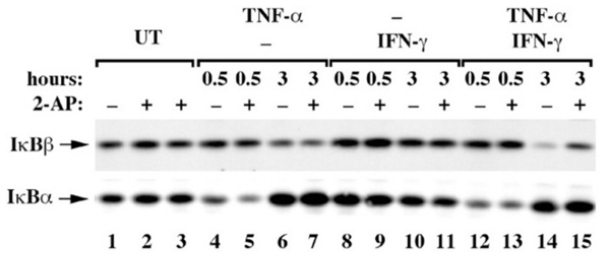
Physical State:	Liquid (sterile filtered)
Concentration:	80 mg/mL by Refractometry
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.1% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

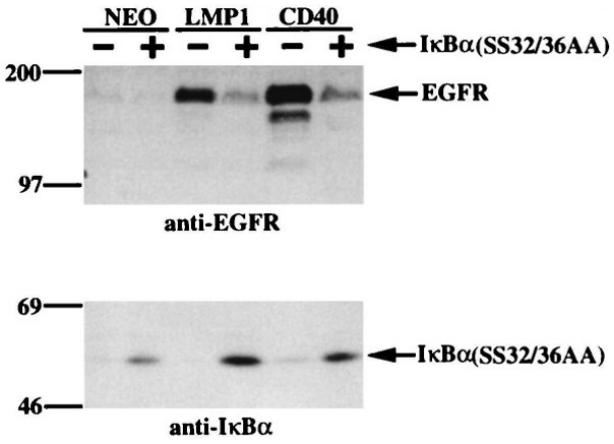
Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

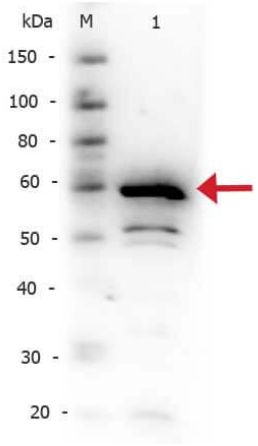
Images



Western Blot
2-AP inhibits TNF-α/Ifn-γ-induced IκBβ degradation. Western analyses of equal amounts of protein from PC12 cell cytoplasmic extracts using polyclonal antibodies specific for IκBα or IκBβ are shown. The time and treatment are indicated above each lane (UT is untreated). TNF-α, Ifn-γ, and 2-AP concentrations were 10 ng/ml, 100 units/ml, and 10 mm, respectively. As a control, cells not treated with cytokine were incubated with 2-AP for 1 h (lane 2) or 3.5 h (lane 3). Where indicated, cells treated with cytokine were preincubated with 2-AP for 30 min (lanes 5, 7,9, 11, 13, and 15). Arrows indicate each specific IκB protein. Figure 2. PMID: 9988719



Western Blot
EGFR induction is decreased in the presence of a constitutively active IκBα. LMP1 or CD40 was transfected into C33A cells in both the absence and the presence of a constitutively active IκBα(SS32/36AA). The resulting cell lines were analyzed by immunoblotting for EGFR expression (top) and the constitutively active IκBα(SS32/36AA) (bottom). Migration of molecular mass standards (in kilodaltons) is shown. Fig 3. PMID: 9566902



Western Blot
Western Blot of Rabbit anti-IKBα C-terminal antibody. Lane 1: IKBα C-terminal. Load: 50 ng per lane. Primary antibody: IKBα C-terminal antibody at 1:500 for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:40,000 for 30 min at RT. Block: Blocking Buffer for Fluorescent Western Blotting (MB-070) for 30 min RT. Predicted/Observed size: 61 kDa, 61 kDa for IKBα C-terminal.

References

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- Wan YY et al. The survival of antigen-stimulated T cells requires NFκB-mediated inhibition of p73 expression. *Immunity.* (2003)
- Cheshire JL et al. Involvement of Double-stranded RNA-activated Protein Kinase in the Synergistic Activation of Nuclear Factor-κB by Tumor Necrosis Factor-α and γ-Interferon in Preneuronal Cells. *J Biol Chem.* (1999)
- Miller WE et al. Interaction of tumor necrosis factor receptor-associated factor signaling proteins with the latent membrane protein 1 PXQXT motif is essential for induction of epidermal growth factor receptor expression *Mol Cell Biol* (1998)
- Cheshire JL et al. Synergistic activation of NF-kappaB by tumor necrosis factor alpha and gamma interferon via enhanced I kappaB alpha degradation and de novo I kappaBbeta. *Mol Cell Biol* (1997)

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