

Technical Data Sheet

Purified Mouse Anti-Human IκBα

Product Information

Material Number:	551819
Clone:	6A920
Reactivity:	QC Testing: Human
Component:	51-8118KC
Description:	Purified Mouse Anti-Human IκBα
Size:	50 µg (1 ea)
Concentration:	0.5 mg/ml
Clone Name:	6A920
Immunogen:	Human IκBα aa. 105-291 tagged fusion protein
Isotype:	Mouse IgG1
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Component:	51-16546N
Description:	A-431 Control Lysate
Size:	50 µg (1 ea)
Concentration:	1.0 mg/ml

Description

NF-κB is a transcription factor which is a member of the mammalian NF-κB/Rel family of proteins. Members of this family are involved in the regulation of cell proliferation, immune function, as well as development. NF-κB is normally found in the cytoplasm and remains in an inactive state by its association with an inhibitory protein, IκB. Stimulation of NF-κB by a variety of inducers causes the degradation of IκBs and translocation of NF-κB to the nucleus and activation of the target gene. IκBα is a member of the IκB family of proteins, including IκBβ, IκBγ, Bcl-3, and the precursors of NF-κB1 (p105), and NF-κB2 (p100). IκBα is the best characterized member of the family and has been shown to contain three different structural domains: an N-terminal region, an amino acid internal region containing ankyrin repeats, and a C-terminal region containing a PEST domain. In resting cells, IκBα binds to and maintains NF-κB in the cytoplasm by blocking the nuclear localization sequences of NF-κB. In response to an extracellular signal, IκBα is phosphorylated and subsequently degraded via the ubiquitination-proteasome pathway, allowing NF-κB to translocate to the nucleus. Once in the nucleus, NF-κB can induce the transcription of IκBα thereby renewing the cycle so that IκBα can form a complex with NF-κB and maintain it in its cytoplasmic location. IκBα ^{-/-} mice have been shown to die soon after birth and show an increased level NF-κB activity. Furthermore, in Hodgkin's lymphoma (HL) a high constitutive level of NF-κB has been reported in samples in which clonal deleterious mutations were detected in the IκBα plays in the pathogenic process which leads to HL remains to be elucidated. IκBα migrates at ~40 kDa in SDS/PAGE, while the deduced molecular weight based upon its cDNA sequence is ~36 kDa (SWISS PROT Accession number P25963).

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store the antibody at 4°C. Store lysate at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Immunoprecipitation	Tested During Development

Recommended Assay Procedure:

Store the antibody at 4°C. A-431 cell lysate is provided as a positive control (Comp. No. 51-16546N; store lysate at -20°C). Additional A-431 control lysate (Cat. No. 611447) is sold separately as a ready-to-use western blot control.

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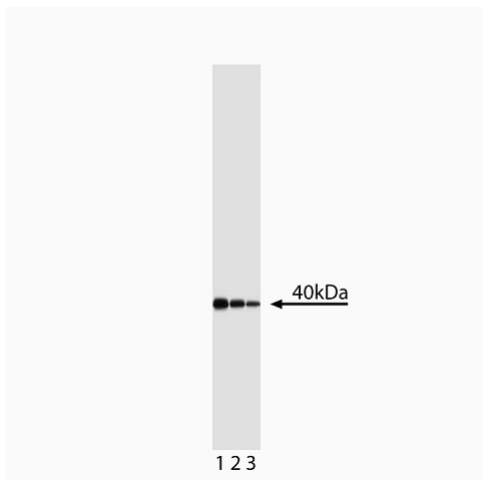
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Western blot analysis of IkBa. Lysate from A-431 cells was probed with anti-human IkBa (clone 6A920, comp. no. 51-8118KC) at concentrations of 0.063 (lane 1), 0.03 (lane 2), and 0.015 µg/ml (lane 3). IkBa is identified as a band of ~40 kDa.

Suggested Companion Products

Catalog Number	Name	Size	Clone
611447	A431 Cell Lysate	500 µg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Baldwin AS Jr. The NF-kappa B and I kappa B proteins: new discoveries and insights. *Annu Rev Immunol.* 1996; 14:649-681.(Biology)
 Beg AA, Sha WC, Bronson RT, Baltimore D. Constitutive NF-kappa B activation, enhanced granulopoiesis, and neonatal lethality in IkBa-deficient mice. *Genes Dev.* 1995; 9(22):2736-2746.(Biology)
 Jungnickel B, Staratschek-Jox A, et al. Clonal deleterious mutations in the IkappaBalpha gene in the malignant cells in Hodgkin's lymphoma. *J Exp Med.* 2000; 191(2):395-402.(Biology)
 Karin M, Ben-Neriah Y. Phosphorylation meets ubiquitination: the control of NF-[kappa]B activity. *Annu Rev Immunol.* 2000; 18:621-663.(Biology)
 Klement JF, Rice NR, Car BD, et al. IkappaBalpha deficiency results in a sustained NF-kappaB response and severe widespread dermatitis in mice. *Mol Cell Biol.* 1996; 16(5):2341-2349.(Biology)
 Verma IM, Stevenson J. IkappaB kinase: beginning, not the end. *Proc Natl Acad Sci U S A.* 1997; 94(22):11758-11760.(Biology)