


## Product datasheet

### Anti-IKB alpha antibody ab97783

[4 References](#) [4 Images](#)

#### Overview

<b>Product name</b>	Anti-IKB alpha antibody
<b>Description</b>	Rabbit polyclonal to IKB alpha
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human <b>Predicted to work with:</b> Rat, Cow, Pig 
<b>Immunogen</b>	Recombinant fragment corresponding to Human IKB alpha (internal sequence). a sequence within the center region Database link: <a href="#">P25963</a>
<b>Positive control</b>	293T, A431, H1299, HeLa, HepG2, MOLT4 and Raji whole cell lysates; HeLa cells.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.00 Preservative: 0.025% Proclin 300 Constituents: 78% PBS, 1% BSA, 20% Glycerol (glycerin, glycerine)
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab97783 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
IHC-P		1/100 - 1/1000.
WB		1/1000 - 1/10000. Predicted molecular weight: 36 kDa.
ICC/IF		1/100 - 1/1000.

## 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.

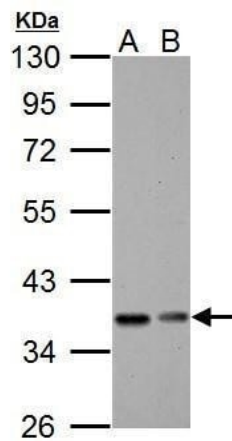
### Post-translational modifications

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 antibody (ab97783)

**All lanes :** Anti-IκB alpha antibody (ab97783) at 1/5000 dilution

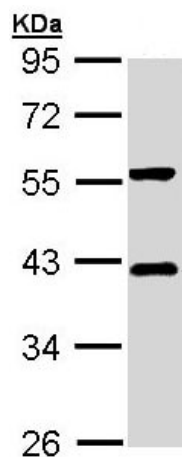
**Lane 1 :** BCL-1 whole cell lysate

**Lane 2 :** C2C12 whole cell lysate

Lysates/proteins at 30 μg per lane.

**Predicted band size:** 36 kDa

10 % SDS-PAGE

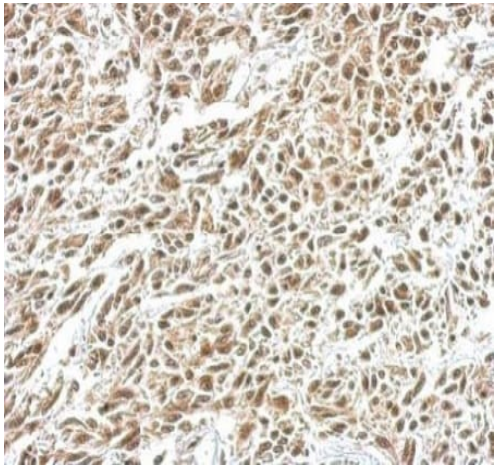


Western blot - Anti-IκB alpha antibody (ab97783)

Anti-IκB alpha antibody (ab97783) at 1/1000 dilution + HepG2 whole cell lysate at 30 μg

**Predicted band size:** 36 kDa

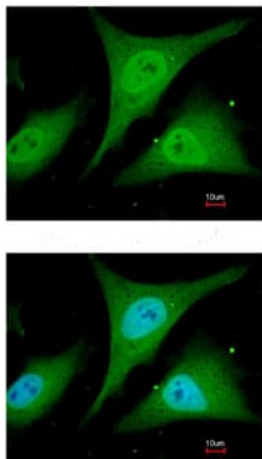
10% SDS-PAGE.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti- $\text{IKB}$  alpha antibody (ab97783)

ab97783 at 1/500 dilution detects  $\text{IKB}$  alpha protein at nucleus on U251 xenograft by immunohistochemical analysis.

Sample: Paraffin-embedded U251 xenograft.



Immunocytochemistry/ Immunofluorescence - Anti- $\text{IKB}$  alpha antibody (ab97783)

ab97783 at 1/200 dilution staining  $\text{IKB}$  alpha in HeLa cells by Immunofluorescence, Paraformaldehyde fixed. Lower image is merged with DNA probe.

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

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