

## Product datasheet

# Anti-IKK alpha antibody ab4111

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### Overview

<b>Product name</b>	Anti-IKK alpha antibody
<b>Description</b>	Rabbit polyclonal to IKK alpha
<b>Specificity</b>	Recognises human IKK alpha and does not cross react with IKK beta or IKK gamma.
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide corresponding to amino acids 716-734 of human IKK alpha (1,2), which differs from corresponding murine sequence by four amino acids.
<b>Positive control</b>	Whole cell lysate from HeLa or Jurkat cells.

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	PBS with 0.02% sodium azide
<b>Purity</b>	IgG fraction
<b>Purification notes</b>	Purified IgG was prepared from rabbit antiserum by affinity chromatography.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

Our [Abpromise guarantee](#) covers the use of **ab4111** 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	<span>★ ★ ★ ☆ ☆</span>	
ICC/IF		

**Application notes**

ICC/IF: Use at a concentration of 1 µg/ml.  
WB: At 1/1000-1/2000 dilution a 85kDa band should be detected.

Not yet tested in other applications.  
Optimal dilutions/concentrations should be determined by the end user.

**Target**

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**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. As part of the non-canonical pathway of NF-kappa-B activation, the MAP3K14-activated CHUK/IKKA homodimer phosphorylates NFkB2/p100 associated with RelB, inducing its proteolytic processing to NFkB2/p52 and the formation of NF-kappa-B RelB-p52 complexes. Also phosphorylates NCOA3. Phosphorylates 'Ser-10' of histone H3 at NF-kappa-B-regulated promoters during inflammatory responses triggered by cytokines.

**Tissue specificity**

Widely expressed.

**Involvement in disease**

Defects in CHUK are the cause of cocoon syndrome (COCOS) [MIM:613630]; also known as fetal encasement syndrome. COCOS is a lethal syndrome characterized by multiple fetal malformations including defective face and seemingly absent limbs, which are bound to the trunk and encased under the skin.

**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**

Phosphorylated by MAP3K14/NIK, AKT and to a lesser extent by MEKK1, and dephosphorylated by PP2A. Autophosphorylated.  
Acetylation of Thr-179 by Yersinia yopJ prevents phosphorylation and activation, thus blocking the I-kappa-B signaling pathway.

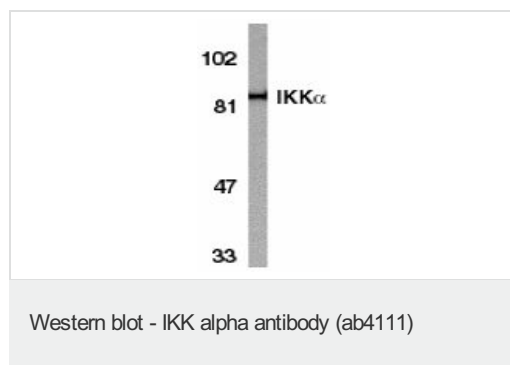
**Cellular localization**

Cytoplasm. Nucleus. Shuttles between the cytoplasm and the nucleus.

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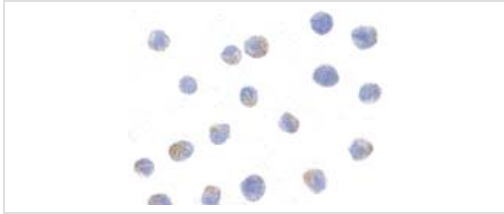
**Images**

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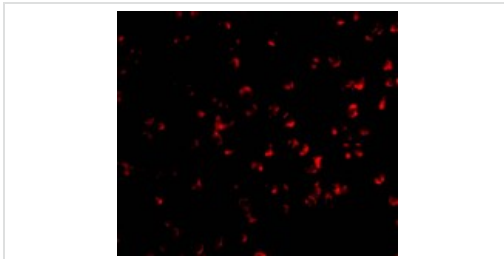
Anti-IKK alpha antibody (ab4111) at 1/1000 dilution + HeLa whole cell lysate

**Observed band size : 85 kDa**



ab4111 at 1µg/ml staining IKK alpha in Jurkat cells by ICC/IF

Immunocytochemistry/ Immunofluorescence - IKK alpha antibody (ab4111)



Immunofluorescence of IKK alpha in Jurkat cells using ab4111 at 10 ug/ml.

Immunocytochemistry/ Immunofluorescence-Anti- IKK alpha antibody(ab4111)

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