

# Anti-Human IκB alpha / NFκBIA Antibody (FITC)



Catalog Number: 12045-MM02-F

General Information	
<b>Immunogen:</b>	Recombinant Human IκB alpha / NFκBIA Protein (Catalog#12045-H07E)
<b>Reagents:</b>	FITC-conjugated mouse monoclonal antibody
<b>Specificity:</b>	Human IκB alpha / NFκBIA
<b>Clone ID:</b>	4H9G5
<b>Ig Type:</b>	Mouse IgG2b
<b>Applications:</b>	WB, FCM, ICC/IF
<b>Concentration:</b>	5 μl/Test, 0.2 mg/ml
<b>Formulation:</b>	Aqueous solution containing 0.5% BSA and 0.1% sodium azide
<b>Storage:</b>	2 °C - 8 °C in the dark

## Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human IκB alpha / NFκBIA (rh IκB alpha / NFκBIA; Catalog#12045-H07E; NP\_065390.1; Phe 2-Leu 317) and conjugated with FITC under optimum conditions, the unreacted FITC was removed.

## Storage

This antibody is stable for 12 months from date of receipt when stored at 2°C - 8°C. Protected from prolonged exposure to light. **Do not freeze !**

Sodium azide is toxic to cells and should be disposed of properly. Flush with large volumes of water during disposal

## Applications

### Flow Cytometry –

### Fig 1, Fig 2. NFκBIA expression in HeLa and Jurkat cells.

The cells were treated according to manufacturer's manual (BD Pharmingen™ Cat. No. 554714), and then stained with FITC Mouse anti-NFκBIA. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.

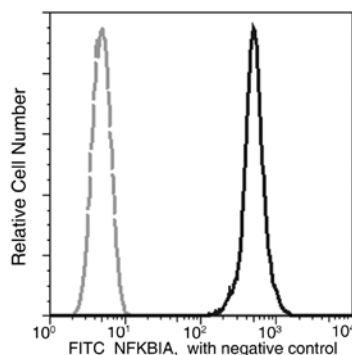


Fig 1. NFκBIA expression in HeLa cells

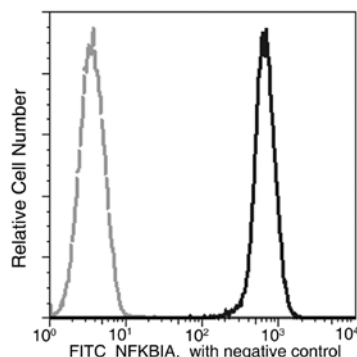


Fig 2. NFκBIA expression in Jurkat cells

Flow cytometry was performed on a BD FACSCalibur flow cytometry system.

Please refer to [www.sinobiological.com/Flow-Cytometry-FACS-Protocols-a-750.html](http://www.sinobiological.com/Flow-Cytometry-FACS-Protocols-a-750.html) for technical protocols.

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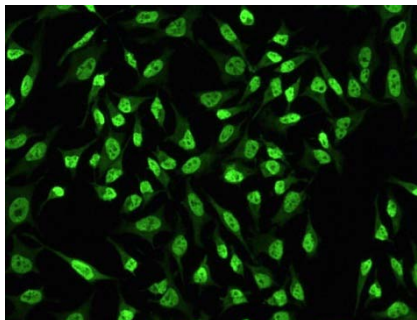
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## **Immunochemistry –**

ICC/IF: 5-20  $\mu$ g/mL



Immunofluorescence staining of human NFKBIA in HeLa cells with mouse monoclonal antibody (15  $\mu$ g/mL). Primary antibody (FITC conjugated) was incubated for 1 hour at 37°C. The image showing nucleus staining of HeLa cells.

**Western blot** – This antibody can be used at 1-2  $\mu$ g/mL with the appropriate secondary reagents to detect Human NFKBIA in WB.

## **Specificity**

Human I $\kappa$ B alpha / NFKBIA

## **Background**

NF-kappa-B inhibitor alpha, also known as Major histocompatibility complex enhancer-binding protein MAD3, I-kappa-B-alpha, NFKBIA and IKBA, is a cytoplasm and nucleus protein which belongs to the NF-kappa-B inhibitor family. NFKBIA contains five ANK repeats. NFKBIA 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, NFKBIA becomes phosphorylated promoting ubiquitination and degradation, enabling the dimeric RELA to translocate to the nucleus and activate transcription. Defects in NFKBIA are the cause of ectodermal dysplasia anhidrotic with T-cell immunodeficiency autosomal dominant (AEDAID). Ectodermal dysplasia defines a heterogeneous group of disorders due to abnormal development of two or more ectodermal structures. AEDAID is an ectodermal dysplasia associated with decreased production of pro-inflammatory cytokines and certain interferons, rendering patients susceptible to infection.

## **Reference**

1. Scherer D.C. et al., 1995, Proc. Natl. Acad. Sci. USA. 92: 11259-11263.
2. Jungnickel B. et al., 2000, J. Exp. Med. 191: 395-402.
3. Courtois G. et al., 2003, J. Clin. Invest. 112: 1108-1115.
4. Ota T. et al., 2004, Nat. Genet. 36: 40-45.