

## **IKB-α Polyclonal Antibody**

Catalog # AP70600

### **Specification**

# IκB-α Polyclonal Antibody - Product Information

**Application Primary Accession** Reactivity Host Clonality

WB, IHC-P, IF P25963 Human, Mouse, Rat Rabbit **Polyclonal** 

# IκB-α Polyclonal Antibody - Additional Information

### **Gene ID 4792**

### **Other Names**

NFKBIA; IKBA; MAD3; NFKBI; NF-kappa-B inhibitor alpha; I-kappa-B-alpha; IkB-alpha; IkappaBalpha; Major histocompatibility complex enhancer-binding protein MAD3

#### **Dilution**

WB~~IF: 1:50-200 WB 1:500-2000, ELISA 1:10000-20000 IHC 1:50-300 IHC-P~~N/A

IF~~IF: 1:50-200 WB 1:500-2000, ELISA 1:10000-20000 IHC 1:50-300

### **Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

# **Storage Conditions**

-20°C

# **IκB-α Polyclonal Antibody - Protein Information**

## Name NFKBIA

Synonyms IKBA, MAD3, NFKBI

### **Function**

Inhibits the activity of dimeric NF-kappa-B/REL complexes by trapping REL (RELA/p65 and NFKB1/p50) dimers in the cytoplasm by masking their nuclear localization signals (PubMed: <a href="http://www.uniprot.org/citations/1493333" target="\_blank">1493333</a>, PubMed:<a href="http://www.uniprot.org/citations/36651806" target=" blank">36651806</a>, PubMed:<a href="http://www.uniprot.org/citations/7479976" target="blank">7479976</a>). On cellular stimulation by immune and pro-inflammatory responses, becomes phosphorylated promoting ubiquitination and degradation, enabling the dimeric RELA to translocate to the nucleus and activate transcription (PubMed: <a href="http://www.uniprot.org/citations/7479976" target=" blank">7479976</a>, PubMed:<a href="http://www.uniprot.org/citations/7628694" target="\_blank">7628694</a>, PubMed:<a href="http://www.uniprot.org/citations/7796813" target="blank">7796813</a>, PubMed:<a href="http://www.uniprot.org/citations/7878466"



target=" blank">7878466</a>).

### **Cellular Location**

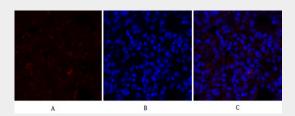
Cytoplasm. Nucleus. Note=Shuttles between the nucleus and the cytoplasm by a nuclear localization signal (NLS) and a CRM1-dependent nuclear export.

## IκB-α Polyclonal Antibody - Protocols

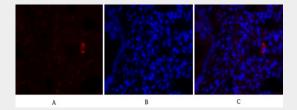
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

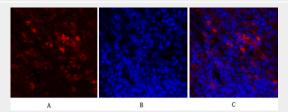
## IκB-α Polyclonal Antibody - Images



Immunofluorescence analysis of rat-lung tissue.  $1,I\kappa B-\alpha$  Polyclonal Antibody(red) was diluted at  $1:200(4^{\circ}C, overnight)$ . 2, Cy3 labled Secondary antibody was diluted at  $1:300(room\ temperature, 50min)$ . 3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

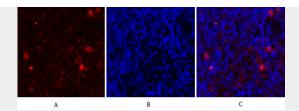


Immunofluorescence analysis of rat-lung tissue.  $1,l\kappa B-\alpha$  Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

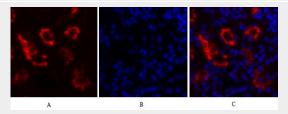


Immunofluorescence analysis of rat-spleen tissue.  $1,I\kappa B-\alpha$  Polyclonal Antibody(red) was diluted at  $1:200(4^{\circ}C,\text{overnight})$ . 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min). 3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

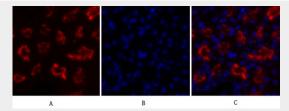




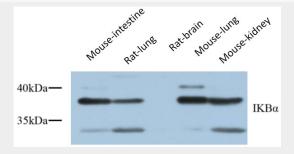
Immunofluorescence analysis of rat-spleen tissue. 1, $IkB-\alpha$  Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of mouse-kidney tissue.  $1,l\kappa B-\alpha$  Polyclonal Antibody(red) was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Cy3 labled Secondary antibody was diluted at  $1:300(room\ temperature,\ 50min)$ .3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

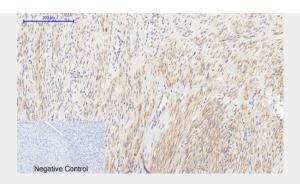


Immunofluorescence analysis of mouse-kidney tissue.  $1,l\kappa B-\alpha$  Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

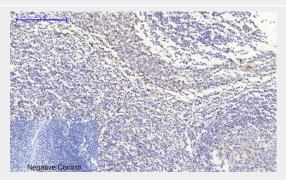


Western Blot analysis of various cells using primary antibody diluted at  $1:1000(4^{\circ}\text{C} \text{ overnight})$ . Secondary antibody Goat Anti-rabbit IgG IRDye 800( diluted at 1:5000,  $25^{\circ}\text{C}$ , 1 hour). Cell lysate was extracted by Minute Plasma Membrane Protein Isolation and Cell Fractionation Kit(SM-005, Inventbiotech, MN, USA).

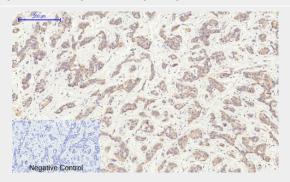




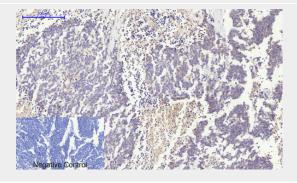
Immunohistochemical analysis of paraffin-embedded Human-uterus-cancer tissue. 1,IKB- $\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at  $1:200(room\ tempeRature,30min)$ . Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Human-Tonsil tissue.  $1,l\kappa B-\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at  $1:200(room\ tempeRature,\ 30min)$ . Negative control was used by secondary antibody only.

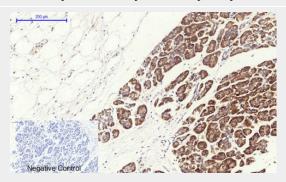


Immunohistochemical analysis of paraffin-embedded Human-liver-cancer tissue. 1,IKB- $\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at  $1:200(room\ tempeRature,\ 30min)$ . Negative control was used by secondary antibody only.

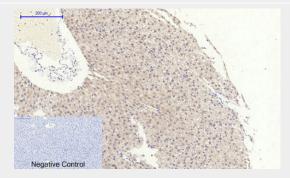




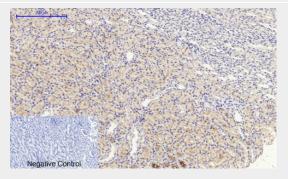
Immunohistochemical analysis of paraffin-embedded Human-lung-cancer tissue.  $1,I\kappa B-\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at  $1:200(room\ tempeRature,\ 30min)$ . Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Human-stomach-cancer tissue. 1,IKB- $\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}\text{C,overnight})$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.

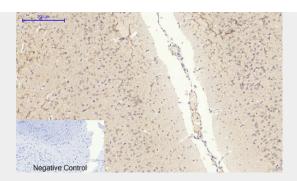


Immunohistochemical analysis of paraffin-embedded Rat-liver tissue.  $1,I\kappa B-\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at  $1:200(room\ tempeRature,\ 30min)$ . Negative control was used by secondary antibody only.

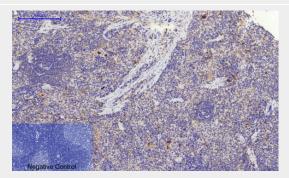


Immunohistochemical analysis of paraffin-embedded Rat-kidney tissue.  $1,lkB-\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at  $1:200(room\ tempeRature,\ 30min)$ . Negative control was used by secondary antibody only.

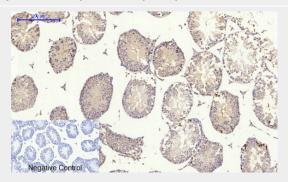




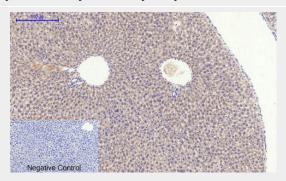
Immunohistochemical analysis of paraffin-embedded Rat-brain tissue.  $1,I\kappa B-\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at  $1:200(room\ tempeRature,\ 30min)$ . Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Rat-spleen tissue.  $1,l\kappa B-\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at  $1:200(room\ tempeRature,\ 30min)$ . Negative control was used by secondary antibody only.

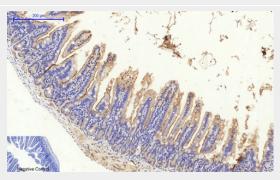


Immunohistochemical analysis of paraffin-embedded Mouse-testis tissue.  $1,lkB-\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at  $1:200(room\ tempeRature,\ 30min)$ . Negative control was used by secondary antibody only.

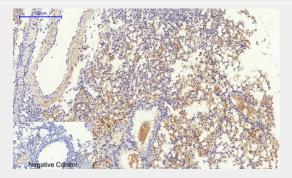




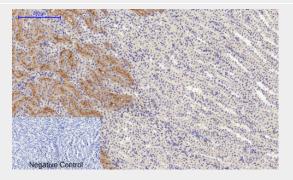
Immunohistochemical analysis of paraffin-embedded Mouse-liver tissue.  $1,I\kappa B-\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at  $1:200(room\ tempeRature,\ 30min)$ . Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-colon tissue.  $1,l\kappa B-\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at  $1:200(room\ tempeRature,\ 30min)$ . Negative control was used by secondary antibody only.

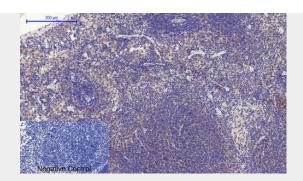


Immunohistochemical analysis of paraffin-embedded Mouse-lung tissue.  $1,l\kappa B-\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at  $1:200(room\ tempeRature,\ 30min)$ . Negative control was used by secondary antibody only.

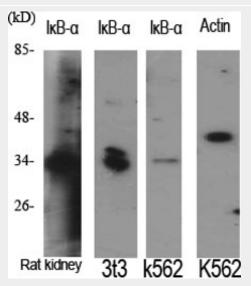


Immunohistochemical analysis of paraffin-embedded Mouse-kidney tissue.  $1,l\kappa B-\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at  $1:200(room\ tempeRature,\ 30min)$ . Negative control was used by secondary antibody only.

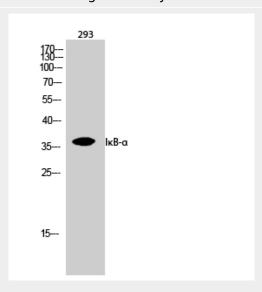




Immunohistochemical analysis of paraffin-embedded Mouse-spleen tissue.  $1,l\kappa B-\alpha$  Polyclonal Antibody was diluted at  $1:200(4^{\circ}C,overnight)$ . 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at  $1:200(room\ tempeRature,\ 30min)$ . Negative control was used by secondary antibody only.

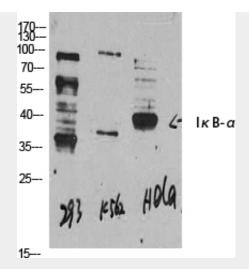


Western Blot analysis of various cells using IκB-α Polyclonal Antibody diluted at 1□2000

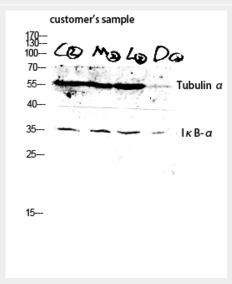


Western Blot analysis of 293 cells using IκB-α Polyclonal Antibody diluted at 1□2000





Western Blot analysis of 293 K562 HELA cells using IκB-α Polyclonal Antibody diluted at 1□2000



Western blot analysis of customer's sample lysis using IkB- $\alpha$  antibody. Antibody was diluted at 1:2000

# IκB-α Polyclonal Antibody - Background

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.