

## IKB alpha Polyclonal Antibody | anti-IKB alpha antibody

Anti-IKB alpha Antibody

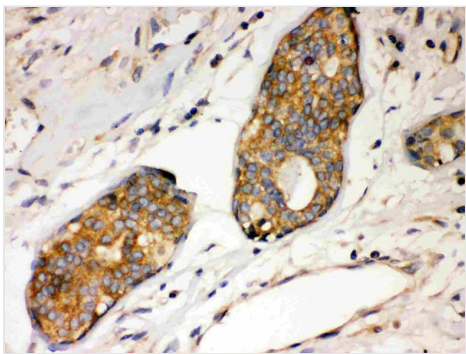
| CATALOG # | REACTIVITY        | APPLICATIONS                       |
|-----------|-------------------|------------------------------------|
| AAA46483  | Human, Mouse, Rat | Immunohistochemistry, Western Blot |

### PRODUCT SYNONYMS

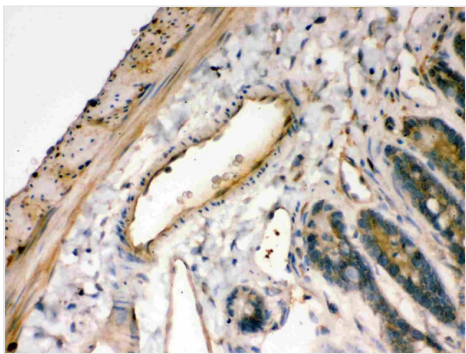
IKB alpha; Polyclonal Antibody; Anti-IKB alpha Antibody; NF-kappa-B inhibitor alpha; I kappa B alpha; I(Kappa)B(alpha); I-kappa-B-alpha; IkappaBalpa; Ikb-alpha; IKBA; IKBA\_HUMAN; IKBalpha; MAD 3; MAD3; Major histocompatibility complex enhancer binding protein MAD3; Major histocompatibility complex enhancer-binding protein MAD3; NF kappa B inhibitor alpha; NFKBI; NFKBIA; Nuclear factor of kappa light chain gene enhancer in B cells; Nuclear factor of kappa light polypeptide gene enhancer in B cells inhibitor alpha; nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor; alpha; anti-IKB alpha antibody

### PRODUCT SPECIFICATIONS

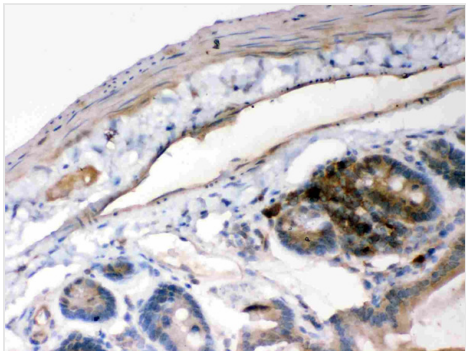
|                                                     |                                                                                                                                                                                                     |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity                                          | Human, Mouse, Rat                                                                                                                                                                                   |
| Clonality                                           | Polyclonal                                                                                                                                                                                          |
| Purity/Purification                                 | Immunogen Affinity Purified                                                                                                                                                                         |
| Form/Format                                         | Lyophilized. Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.                                                                                                                    |
| Sequence Length                                     | 317                                                                                                                                                                                                 |
| Applicable Applications for anti-IKB alpha antibody | IHC (Immunohistochemistry), WB (Western Blot)                                                                                                                                                       |
| Immunogen                                           | E Coli-derived human IKB alpha recombinant protein (Position: Q3-Q112). Human IKB alpha shares 87% and 86% amino acid (aa) sequence identity with mouse and rat IKB alpha, respectively.            |
| Ig Type                                             | Rabbit IgG                                                                                                                                                                                          |
| Reconstitution                                      | Add 0.2ml of distilled water will yield a concentration of 500ug/ml.                                                                                                                                |
| Preparation and Storage                             | At -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquoted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing. |



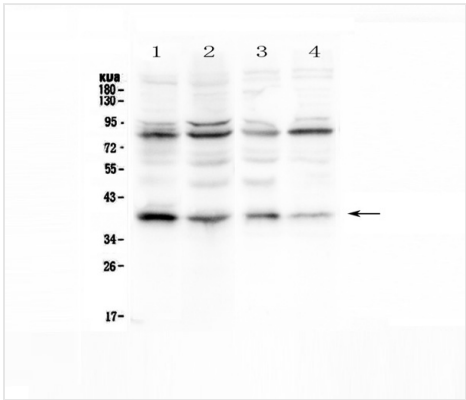
**IHC (Immunohistochemistry)**  
Figure 4. IHC analysis of IKB alpha using anti- $\text{IKB}$  alpha antibody (AAA46483). $\text{IKB}$  alpha was detected in paraffin-embedded section of Human Mammary Cancer Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti- $\text{IKB}$  alpha Antibody (AAA46483) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



**IHC (Immunohistochemistry)**  
Figure 3. IHC analysis of IKB alpha using anti- $\text{IKB}$  alpha antibody (AAA46483). $\text{IKB}$  alpha was detected in paraffin-embedded section of Rat Intestine Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti- $\text{IKB}$  alpha Antibody (AAA46483) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



**IHC (Immunohistochemistry)**  
Figure 2. IHC analysis of IKB alpha using anti- $\text{IKB}$  alpha antibody (AAA46483). $\text{IKB}$  alpha was detected in paraffin-embedded section of Mouse Intestine Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti- $\text{IKB}$  alpha Antibody (AAA46483) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



**WB (Western Blot)**  
Figure 1. Western blot analysis of IKB Alpha using anti-  $\text{IKB}$  Alpha antibody (AAA46483).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: human Jurkat whole cell lysates,Lane 2: human MDA-MB-453 whole cell lysates,Lane 3: human SW620 whole cell lysates,Lane 4: human A549 whole cell lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- $\text{IKB}$  Alpha antigen affinity purified polyclonal antibody at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for IKB Alpha at approximately 39KD. The expected band size for IKB Alpha is at 36KD.

ADDITIONAL INFORMATION

|                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for anti-<math>\text{IKB}</math> alpha antibody</b> | <p>Description: Rabbit IgG polyclonal antibody for NF-kappa-B inhibitor alpha(NFKBIA) detection. Tested with WB, IHC-P in Human;Mouse;Rat.</p> <p>Background: NFKBIA, also called IKBA or MAD-3, is one member of a family of cellular proteins that function to inhibit the NF-kappaB transcription factor. It is mapped to 14q13.2. NFKBIA inhibits NF-kappaB by masking the nuclear localization signals(NLS) of NF-kappaB proteins and keeping them sequestered in an inactive state in the cytoplasm. It moves between the cytoplasm and the nucleus via a nuclear localization signal and CRM1-mediated nuclear export. The effect of the nonpathogenic bacteria is specific to the SCF complex substrates CTNNB1 and NFKBIA. This may help to explain the beneficial effects of treatment of inflammatory bowel disease with nonpathogenic probiotic enteric organisms. In addition, NFKBIA blocks the ability of NF-kappaB transcription factors to bind to DNA, which is required for NF-kappaB's proper functioning.</p> |
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|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| References | 1. Jacobs MD, Harrison SC (1998). "Structure of an IkappaBalpha/NF-kappaB complex". Cell 95 (6): 749-58. 2. Neish, A. S., Gewirtz, A. T., Zeng, H., Young, A. N., Hobert, M. E., Karmali, V., Rao, A. S., Madara, J. L. Prokaryotic regulation of epithelial responses by inhibition of I-kappa-B-alpha ubiquitination. Science 289: 1560-1563, 2000. 3. Verma IM, Stevenson JK, Schwarz EM, Van Antwerp D, Miyamoto S (1995). "Rel/NF-kappa B/I kappa B family: intimate tales of association and dissociation". Genes Dev.9 (22): 2723-35. |
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NCBI AND UNIPROT INFORMATION

|                                  |                                            |
|----------------------------------|--------------------------------------------|
| NCBI GI #                        | 10092619                                   |
| NCBI GeneID                      | 4792                                       |
| NCBI Accession #                 | NP_065390.1                                |
| NCBI GenBank Nucleotide #        | NM_020529.2                                |
| UniProt Accession #              | P25963; B2R8L6                             |
| Molecular Weight                 | 35,609 Da                                  |
| NCBI Official Full Name          | NF-kappa-B inhibitor alpha                 |
| NCBI Official Synonym Full Names | NFKB inhibitor alpha                       |
| NCBI Official Symbol             | NFKBIA                                     |
| NCBI Official Synonym Symbols    | IKBA; MAD-3; NFKBI                         |
| NCBI Protein Information         | NF-kappa-B inhibitor alpha                 |
| UniProt Protein Name             | NF-kappa-B inhibitor alpha                 |
| UniProt Gene Name                | NFKBIA                                     |
| UniProt Synonym Gene Names       | IKBA; MAD3; NFKBI; Ikb-alpha; IkappaBalpha |
| UniProt Entry Name               | IKBA_HUMAN                                 |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.