

Rabbit I kappaB alpha Polyclonal Antibody | anti-NFKBIA antibody

Phospho-I kappaB alpha (Tyr305) Antibody

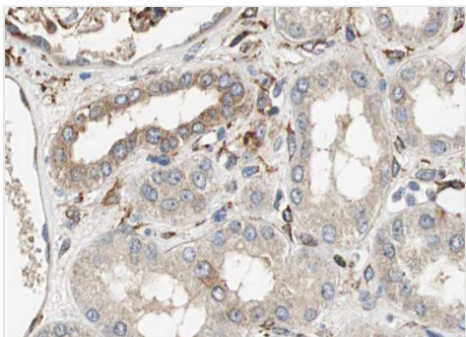
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321577	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

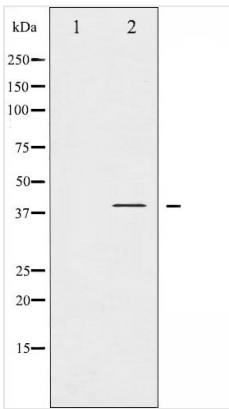
I kappaB alpha; Polyclonal Antibody; Phospho-I kappaB alpha (Tyr305) Antibody; I kappa B alpha; I-kappa-B-alpha; IkappaBalpha; IκB-alpha; IKBA; IKBA_HUMAN; IKBalpha; MAD 3; MAD3; Major histocompatibility complex enhancer-binding protein MAD3; NF kappa B inhibitor alpha; NF-kappa-B inhibitor alpha; NFKBI; 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; anti-NFKBIA antibody

PRODUCT SPECIFICATIONS

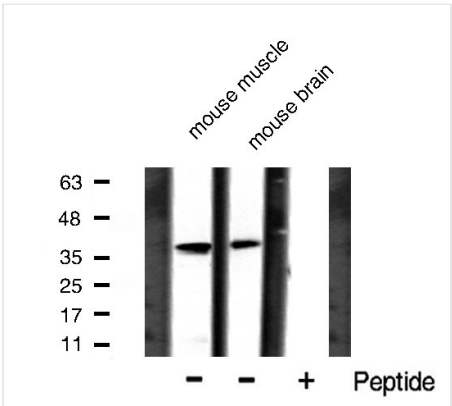
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-I kappaB-alpha (Tyr305) antibody detects endogenous levels of I kappaB-alpha only when phosphorylated at Tyrosine 305
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	317
Applicable Applications for anti-NFKBIA antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human I kappaB-alpha around the phosphorylation site of Tyrosine 305
Subcellular Location	Cytoplasm. Nucleus. Shuttles between the nucleus and the cytoplasm by a nuclear localization signal (NLS) and a CRM1-dependent nuclear export.
Tissue Specificity	Induced in adherent monocytes.
Predicted Cross Reactivity	Pig, Bovine, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Bovine (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (88%), Xenopus (100%)
Conjugation	Unconjugated
Epitope	Phospho Tyr305
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



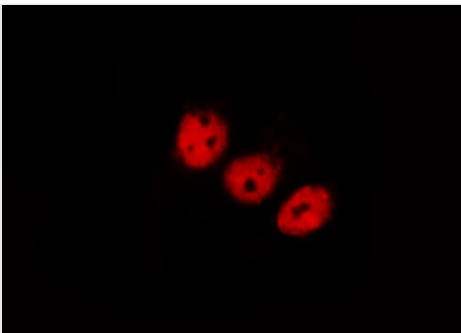
IHC (Immunohistochemistry)
AAA321577 at 1/100 staining human kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of I kappaB-alpha phosphorylation expression in nocodazole treated COS7 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



WB (Western Blot)
Western blot analysis of I kappaB alpha phosphorylation expression in mouse muscle and mouse brain lysates, The lane on the right is treated with the antigen-specific peptide.



IF (Immunofluorescence)
AAA321577 staining MCF7 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-NFKBIA antibody	Description: NFKB1 (MIM 164011) or NFKB2 (MIM 164012) is bound to REL (MIM 164910), RELA (MIM 164014), or RELB (MIM 604758) to form the NFKB complex. The NFKB complex is inhibited by I-kappa-B proteins (NFKBIA or NFKBIB, MIM 604495), which inactivate NF-kappa-B by trapping it in the cytoplasm. 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. Subunit Structure: Interacts with RELA; the interaction requires the nuclear import signal. Interacts with NKIRAS1 and NKIRAS2. Part of a 70-90 kDa complex at least consisting of CHUK, IKBKB, NFKBIA, RELA, ELP1 and MAP3K14. Interacts with HBV protein X. Interacts with isoform 1 and isoform 2 of RWDD3; the interaction enhances sumoylation. Interacts (when phosphorylated at the 2 serine residues in the destruction motif D-S-G-X(2, 3, 4)-S) with BTRC. Associates with the SCF(BTRC) complex, composed of SKP1, CUL1 and BTRC; the association is mediated via interaction with BTRC. Part of a SCF(BTRC)-like complex lacking CUL1, which is associated with RELA; RELA interacts directly with NFKBIA. Interacts with PRMT2. Interacts with PRKACA in platelets; this interaction is disrupted by thrombin and collagen. Interacts with HIF1AN. Interacts with MEFV. Interacts with DDRGK1; positively regulates NFKBIA phosphorylation and degradation. 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. Similarity: Belongs to the NF-kappa-B inhibitor family.
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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	Observed: 39 kDa Predicted: 36 kDa
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

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.