

Rabbit NF kappaB p105/p50 Polyclonal Antibody | anti-NFkappaB antibody

Phospho-NF kappaB p105/p50 (Ser903) Antibody

CATALOG # AAA329621	HOST Rabbit	REACTIVITY Human Predicted Reactivity: Bovine (83%), Sheep (83%), Rabbit (91%)	APPLICATIONS ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

NF kappaB p105/p50; Polyclonal Antibody; Phospho-NF kappaB p105/p50 (Ser903) Antibody; DKFZp686C01211; DNA binding factor KBF1; DNA binding factor KBF1 EBP1; DNA-binding factor KBF1; EBP 1; EBP-1; EBP1; KBF1; MGC54151; NF kappa B; NF kappaB; NF kappabeta; NF kB1; NFkappaB; NFKB 1; NFKB p105; NFKB p50; Nfkb1; NFKB1_HUMAN; Nuclear factor kappa B DNA binding subunit; Nuclear factor kappa-B; subunit 1; Nuclear factor NF kappa B p105 subunit; Nuclear factor NF kappa B p50 subunit; Nuclear factor NF-kappa-B p50 subunit; Nuclear factor of kappa light chain gene enhancer in B cells 1; Nuclear factor of kappa light polypeptide gene enhancer in B cells 1; Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1; p105; p50; p84/NF-kappa-B1 p98; Transcription factor NFKB1; anti-NFkappaB antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human Predicted Reactivity: Bovine (83%), Sheep (83%), Rabbit (91%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-NF kappaB p105/p50 (Ser903) Antibody detects endogenous levels of NF kappaB p105/p50 only when phosphorylated at Ser903.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-NFkappaB antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human NF-kappaB p105 around the phosphorylation site of Ser903.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	While translation occurs, the particular unfolded structure after the GRR repeat promotes the generation of p50 making it an acceptable substrate for the proteasome. This process is known as cotranslational processing. The processed form is active and the unprocessed form acts as an inhibitor (I kappa B-like), being able to form cytosolic complexes with NF-kappa B, trapping it in the cytoplasm. Complete folding of the region downstream of the GRR repeat precludes processing. Phosphorylation at 'Ser-903' and 'Ser-907' primes p105 for proteolytic processing in response to TNF-alpha stimulation. Phosphorylation at 'Ser-927' and 'Ser-932' are required for BTRC/BTRCP-mediated proteolysis. Polyubiquitination seems to allow p105 processing. S-nitrosylation of Cys-61 affects DNA binding. The covalent modification of cysteine by 15-deoxy-Delta12,14-prostaglandin-J2 is autocatalytic and reversible. It may occur as an alternative to other cysteine modifications, such as S-nitrosylation and S-palmitoylation.

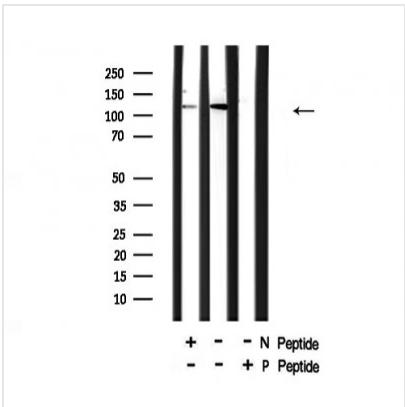
Subunit Structure	Component of the NF-kappa-B p65-p50 complex. Component of the NF-kappa-B p65-p50 complex. Homodimer; component of the NF-kappa-B p50-p50 complex. Component of the NF-kappa-B p105-p50 complex. Component of the NF-kappa-B p50-c-Rel complex. Component of a complex consisting of the NF-kappa-B p50-p50 homodimer and BCL3. Also interacts with MAP3K8. NF-kappa-B p50 subunit interacts with NCOA3 coactivator, which may coactivate NF-kappa-B dependent expression via its histone acetyltransferase activity. Interacts with DSIP1; this interaction prevents nuclear translocation and DNA-binding. Interacts with SPAG9 and UNC5CL. NFKB1/p105 interacts with CFLAR; the interaction inhibits p105 processing into p50. NFKB1/p105 forms a ternary complex with MAP3K8 and TNIP2. Interacts with GSK3B; the interaction prevents processing of p105 to p50. NFKB1/p50 interacts with NFKBIE. NFKB1/p50 interacts with NFKBIZ. Nuclear factor NF-kappa-B p50 subunit interacts with NFKBID (By similarity). Directly interacts with MEN1. Interacts with HIF1AN.
Similarity	The C-terminus of p105 might be involved in cytoplasmic retention, inhibition of DNA-binding, and transcription activation.Glycine-rich region (GRR) appears to be a critical element in the generation of p50.
Subcellular Location	Nucleus. Cytoplasm. Note: Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B).
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

Staining HeLa 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.



WB (Western Blot)

Western blot analysis NF-κB p105 (Phospho-Ser903) using Jurkat whole cell lysates.-/+ means absence or presence of N peptide¼non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-NFkappaB antibody

NF-kappa-B is a pleiotropic transcription factor present in almost all cell types and is the endpoint of a series of signal transduction events that are initiated by a vast array of stimuli related to many biological processes such as inflammation, immunity, differentiation, cell growth, tumorigenesis and apoptosis. NF-kappa-B is a homo- or heterodimeric complex formed by the Rel-like domain-containing proteins RELA/p65, RELB, NFKB1/p105, NFKB1/p50, REL and NFKB2/p52 and the heterodimeric p65-p50 complex appears to be most abundant one. The dimers bind at kappa-B sites in the DNA of their target genes and the individual dimers have distinct preferences for different kappa-B sites that they can bind with distinguishable affinity and specificity. Different dimer combinations act as transcriptional activators or repressors, respectively. NF-kappa-B is controlled by various mechanisms of post-translational modification and subcellular compartmentalization as well as by interactions with other cofactors or corepressors. NF-kappa-B complexes are held in the cytoplasm in an inactive state complexed with members of the NF-kappa-B inhibitor (I-kappa-B) family. In a conventional activation pathway, I-kappa-B is phosphorylated by I-kappa-B kinases (IKKs) in response to different activators, subsequently degraded thus liberating the active NF-kappa-B complex which translocates to the nucleus. NF-kappa-B heterodimeric p65-p50 and RelB-p50 complexes are transcriptional activators. The NF-kappa-B p50-p50 homodimer is a transcriptional repressor, but can act as a transcriptional activator when associated with BCL3. NFKB1 appears to have dual functions such as cytoplasmic retention of attached NF-kappa-B proteins by p105 and generation of p50 by a cotranslational processing. The proteasome-mediated process ensures the production of both p50 and p105 and preserves their independent function, although processing of NFKB1/p105 also appears to occur post-translationally. p50 binds to the kappa-B consensus sequence 5'-GGRNNYYCC-3', located in the enhancer region of genes involved in immune response and acute phase reactions. In a complex with MAP3K8, NFKB1/p105 represses MAP3K8-induced MAPK signaling; active MAP3K8 is released by proteasome-dependent degradation of NFKB1/p105.

NCBI AND UNIPROT INFORMATION

NCBI GI #	259155302
NCBI GeneID	4790
NCBI Accession #	NP_001158884.1
NCBI GenBank Nucleotide #	NM_001165412.1
UniProt Accession #	P19838 ; Q68D84 ; Q86V43 ; Q8N4X7 ; Q9NZC0 ; A8K5Y5 ; B3KVE8
Molecular Weight	105,356 Da
NCBI Official Full Name	nuclear factor NF-kappa-B p105 subunit isoform 2
NCBI Official Synonym Full Names	nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
NCBI Official Symbol	NFKB1
NCBI Official Synonym Symbols	p50; KBF1; p105; EBP-1; NF-kB1; NFKB-p50; NFkappaB; NF-kappaB; NFKB-p105; NF-kappa-B
NCBI Protein Information	nuclear factor NF-kappa-B p105 subunit; NF-kappabeta; DNA binding factor KBF1; DNA-binding factor KBF1; nuclear factor NF-kappa-B p50 subunit; nuclear factor kappa-B DNA binding subunit
UniProt Protein Name	Nuclear factor NF-kappa-B p105 subunit
UniProt Gene Name	NFKB1
UniProt Entry Name	NFKB1_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.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/nf-kappab-p105-p50-antibody-peptide-elisa-immunocytochemistry-immunofluorescence-western-blot-elisa/329621>