

Rabbit NF kappaB p105/p50 Polyclonal Antibody | anti-NFKB1 antibody

Phospho-NF kappaB p105/p50 (Ser337) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321562	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

NF kappaB p105/p50; Polyclonal Antibody; Phospho-NF kappaB p105/p50 (Ser337) 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-NFKB1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-NF-kappaB p105/p50 (Ser337) antibody detects endogenous levels of NF-kappaB p105/p50 only when phosphorylated at Serine 337
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	968
Applicable Applications for anti-NFKB1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human NF-kappaB p105/p50 around the phosphorylation site of Serine 337
Subcellular Location	Nucleus. Cytoplasm. Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor.
Tissue Specificity	By phorbol ester and TNF.
Conjugation	Unconjugated
Epitope	Phospho Ser337
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)

Western blot analysis of Phospho-NF kappaB p105/p50 (Ser337) expression in various lysates



IHC (Immunohistochemistry)

AAA321562 at 1/100 staining human breast carcinoma 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.



IF (Immunofluorescence)

AAA321562 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 of NF-kappaB p105/p50 phosphorylation expression in MDA-MB-435 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-NFKB1 antibody	<p>Description: NFkB-p105 a transcription factor of the nuclear factor-kappaB (NFkB) group. Undergoes cotranslational processing by the 26S proteasome to produce a 50 kD protein. The 105 kD protein is a Rel protein-specific transcription inhibitor and the 50 kD protein is a DNA binding subunit of NFkB. NFkB is a transcription regulator that is activated by various intra-and extra-cellular stimuli such as cytokines, oxidant-free radicals, ultraviolet irradiation, and bacterial or viral products.</p> <p>Function: 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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
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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	Observed: 105; 50 kDa Predicted: 106 kDa
NCBI Official Full Name	nuclear factor NF-kappa-B p105 subunit isoform 2 proprotein
NCBI Official Synonym Full Names	nuclear factor kappa B subunit 1
NCBI Official Symbol	NFKB1
NCBI Official Synonym Symbols	p50; KBF1; p105; EBP-1; CVID12; NF-kB1; NFKB-p50; NFkappaB; NF-kappaB; NFKB-p105; NF-kappa-B1
NCBI Protein Information	nuclear factor NF-kappa-B p105 subunit
UniProt Protein Name	Nuclear factor NF-kappa-B p105 subunit
UniProt Gene Name	NFKB1

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-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/321562>