

Rabbit Anti-Phospho-NFKB1 (Ser903)/Biotin Conjugated antibody

SL5509R-Bio

Product Name	Anti-Phospho-NFKB1 (Ser903)/Biotin
Chinese Name	生物素标记的磷酸化 The nucleus 因子 p50/k 基因结合核因子抗体
Alias	NFkB p105 / p50 (phospho S903); DKFZp686C01211; DNA binding factor KBF1; DNA binding factor KBF1 EBP1; DNA binding factor KBF1 EBP1; DNA-binding factor KBF1; EBP 1; EBP-1; EBP1; KBF1; MGC54151; NF kappa B; NF kappabeta; NF kB1; NFKB 1; NFKB p105; NFKB p50; NFKB1; NFKB1_HUMAN; Nuclear factor kappa B DNA binding subunit; 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 polypeptide gene enhancer in B cells 1; Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1; p84/NF-kappa-B1 p98.
Product Type	Phosphorylated anti
Research Area	Tumour Cell biology immunology Chromatin and nuclear signals Signal transduction Apoptosis transcriptional regulatory factor Epigenetics
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human
Applications	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug/test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	105kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated Synthesised phosphopeptide derived from human NF KappaB p105 around the phosphorylation site of Ser903 [AH(p-S)LP]
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The

lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

background:

This gene encodes a 105 kD protein which can undergo 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 the NF-kappa-B (NFKB) protein complex. 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. Activated NFKB translocates into the nucleus and stimulates the expression of genes involved in a wide variety of biological functions. Inappropriate activation of NFKB has been associated with a number of inflammatory diseases while persistent inhibition of NFKB leads to inappropriate immune cell development or delayed cell growth. **SUBUNIT:** Active NF-kappa-B is a heterodimer of an about 50 kDa DNA-binding subunit and the weak DNA-binding subunit p65. Two heterodimers might form a labile tetramer. 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 DSIPI; this interaction prevents nuclear translocation and DNA-binding. Interacts with SPAG9 and UNC5CL.

Product Detail

Function:

This gene encodes a 105 kD protein which can undergo 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 the NF-kappa-B (NFKB) protein complex. 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. Activated NFKB translocates into the nucleus and stimulates the expression of genes involved in a wide variety of biological functions. Inappropriate activation of NFKB has been associated with a number of inflammatory diseases while persistent inhibition of NFKB leads to inappropriate immune cell development or delayed cell growth. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2009].

Subunit:

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 DSIPI; 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. Directly interacts with MEN1. Interacts with HIF1AN.

Subcellular Location:

Nucleus. Cytoplasm. Note=Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B).

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-Delta 12,14-prostaglandin-J2 is autocatalytic and reversible. It may occur as an alternative to other cysteine modifications, such as S-nitrosylation and S-palmitoylation.

Similarity:

Contains 7 ANK repeats.

Contains 1 death domain.

Contains 1 RHD (Rel-like) domain.

Database links:

[Entrez Gene: 4790](#) Human



[Omim: 164011](#) Human

[SwissProt: P19838](#) Human

[Unigene: 618430](#) Human

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.