

## Immunotag™ NFκB-p100 (phospho Ser869) Polyclonal Antibody

Antibody Specification	
Catalog No.	ITP0182
Product Description	Immunotag™ NFκB-p100 (phospho Ser869) Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	NFκB p100 (Ser869)
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,IHC-p,IP,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunoprecipitation: 2-5 ug/mg lysate. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	The antiserum was produced against synthesized peptide derived from human NF-kappaB p100/p52 around the phosphorylation site of Ser869. AA range:836-885
Specificity	Phospho-NFκB-p100 (S869) Polyclonal Antibody detects endogenous levels of NFκB-p100 protein only when phosphorylated at S869.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	NFKB2
Accession No.	Q00653 Q9WTK5
Alternate Names	NFKB2; LYT10; Nuclear factor NF-kappa-B p100 subunit; DNA-binding factor KBF2; H2TF1; Lymphocyte translocation chromosome 10 protein; Nuclear factor of kappa light polypeptide gene enhancer in B-cells 2; Oncogene Lyt-10; Lyt10

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Description	nuclear factor kappa B subunit 2(NFKB2) Homo sapiens This gene encodes a subunit of the transcription factor complex nuclear factor-kappa-B (NFkB). The NFkB complex is expressed in numerous cell types and functions as a central activator of genes involved in inflammation and immune function. The protein encoded by this gene can function as both a transcriptional activator or repressor depending on its dimerization partner. The p100 full-length protein is co-translationally processed into a p52 active form. Chromosomal rearrangements and translocations of this locus have been observed in B cell lymphomas, some of which may result in the formation of fusion proteins. There is a pseudogene for this gene on chromosome 18. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2013],
Cell Pathway/ Category	B Cell Receptor, Stem cell pathway, MAPK_ERK_Growth,MAPK_G_Protein, Akt_PKB, NF_kappaB, Protein_Acetylation
Protein Expression	Leukemia,Lymph,Thymus,
Subcellular Localization	nucleus,nucleoplasm,cytoplasm,cytosol,Bcl3/NF-kappaB2 complex,

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### Protein Function

disease:A chromosomal aberration involving NFKB2 is found in a case of B-cell non Hodgkin lymphoma (B-NHL). Translocation t(10;14)(q24;q32) with IGHA1. The resulting oncogene is also called Lym-10C alpha variant.,disease:A chromosomal aberration involving NFKB2 is found in a cutaneous T-cell leukemia (C-TCL) cell line. This rearrangement produces the p80HT gene which encodes for a truncated 80 kDa protein (p80HT).,disease:In B-cell leukemia (B-CLL) cell line, LB40 and EB308, can be found after heterogeneous chromosomal aberrations, such as internal deletions.,domain:The C-terminus of p100 might be involved in cytoplasmic retention, inhibition of DNA-binding by p52 homodimers, and/or transcription activation.,domain:The glycine-rich region (GRR) appears to be a critical element in the generation of p52.,function:NF-kappa-B is a pleiotropic transcription factor which is present in almost all cell types and is involved in 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. 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. In a non-canonical activation pathway, the MAP3K14-activated CHUK/IKKα homodimer phosphorylates NFKB2/p100 associated with RelB, inducing its proteolytic processing to NFKB2/p52 and the formation of NF-kappa-B RelB-p52 complexes. The NF-kappa-B heterodimeric RelB-p52 complex is a transcriptional activator. The NF-kappa-B p52-p52 homodimer is a transcriptional repressor. NFKB2 appears to have dual functions such as cytoplasmic retention of attached NF-kappa-B proteins by p100 and generation of p52 by a cotranslational processing. The proteasome-mediated process ensures the production of both p52 and p100 and preserves their independent function. p52 binds to the kappa-B consensus sequence 5'-GGRNYYCC-3', located in the enhancer region of genes involved in immune response and acute phase reactions. p52 and p100 are respectively the minor and major form; the processing of p100 being relatively poor. Isoform p49 is a subunit of the NF-kappa-B protein complex, which stimulates the HIV enhancer in synergy with p65.,PTM:Constitutive processing is tightly suppressed by its C-terminal processing inhibitory domain, named PID, which contains the death domain.,PTM:Subsequent to MAP3K14-dependent serine phosphorylation, p100 polyubiquitination occurs then triggering its proteasome-dependent processing.,PTM:While translation occurs, the particular unfolded structure after the GRR repeat promotes the generation of p52 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.,similarity:Contains 1 death domain.,similarity:Contains 1 RHD (Rel-like) domain.,similarity:Contains 7 ANK repeats.,subcellular location:Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B).,subunit:Component of the NF-kappa-B RelB-p52 complex. Homodimer; component of the NF-kappa-B p52-p52 complex. Component of the NF-kappa-B p65-p52 complex. Component of the NF-kappa-B p52-c-Rel complex. NFKB2/p52 interacts with NFKBIE. Component of a complex consisting of the NF-kappa-B p50-p50 homodimer and BCL3.,

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Usage

For Research Use Only! Not for diagnostic or therapeutic procedures.