

Anti-NFKB p52 (RABBIT) Antibody

NFkB P52 Antibody Catalog # ASR3817

Specification

Application Note

Anti-NFKB p52 (RABBIT) Antibody - Product Information

Host Rabbit

Conjugate **Unconjugated Target Species** Human

Reactivity Human Clonality **Polyclonal** Application WB, E, I, LCI

> This product was assayed by immunoblot and found to be reactive against Human NFKB2 p52 at a dilution of 1:1000 followed by reaction with Peroxidase conjugated Affinity Purified anti-Rabbit IgG [H&L] (Goat) code #611-1302. Anti- Human NFKB2 p52 is suitable for the detection by immunoblot of Human NFKB2 p52 and its precursor protein p100. Cross reactivity with p52 from other species may occur but

has not been specifically determined. Reactivity in supershift assays has not

been determined. Liquid (sterile filtered)

0.02 M Potassium Phosphate, 0.15 M

Sodium Chloride, pH 7.2

Immunogen Human NFKB2 p52/p100 peptide

corresponding to aa residue 1-19 the human protein conjugated to Keyhole

Limpet Hemocyanin (KLH).

Preservative 0.01% (w/v) Sodium Azide

Anti-NFKB p52 (RABBIT) Antibody - Additional Information

Gene ID 4791

Physical State

Buffer

Other Names

4791

Purity

This product was prepared from monospecific antiserum by delipidation and defibrination. Anti-Human NFKB2 p52 may react non-specifically with other proteins. Control peptide (code #100-4185p) will compete only with the specific reaction of antiserum with Human NFKB2 p52.

Storage Condition

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted



liquid. Dilute only prior to immediate use.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-NFKB p52 (RABBIT) Antibody - Protein Information

Name NFKB2

Synonyms LYT10

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. 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/IKKA 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'-GGRNNYYCC-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. In concert with RELB, regulates the circadian clock by repressing the transcriptional activator activity of the CLOCK-BMAL1 heterodimer.

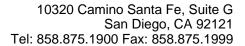
Cellular Location

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

Anti-NFKB p52 (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence





• <u>Immunoprecipitation</u>

- Flow Cytomety
- Cell Culture

Anti-NFKB p52 (RABBIT) Antibody - Images

Anti-NFKB p52 (RABBIT) Antibody - Background

NFkB was originally identified as a factor that binds to the immunoglobulin kappa light chain enhancer in B cells. It was subsequently found in non-B cells in an inactive cytoplasmic form consisting of NFkB bound to IkB. NFkB was originally identified as a heterodimeric DNA binding protein complex consisting of p65 (RelA) and p50 (NFKB1) subunits. Other identified subunits include p52 (NFKB2), c-Rel, and RelB. The p65, cRel, and RelB subunits are responsible for transactivation. The p50 and p52 subunits possess DNA binding activity but limited ability to transactivate. p52 has been reported to form transcriptionally active heterodimers with the NFkB subunit p65, similar to p50/p65 heterodimers. The heterodimers of p52/p65 and p50/p65 are regulated by physical inactivation in the cytoplasm by an inhibitor called IkB-a. IkB-a binds to the p65 subunit, preventing nuclear localization and DNA binding. Low levels of p52 and p50 homodimers can also exist in cells.