

Anti-NF-kB p65 Antibody

Catalog # ABO10580

Product Information

Application	WB
Primary Accession	Q04206
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Transcription factor p65(RELA) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	5970
Other Names	Transcription factor p65, Nuclear factor NF-kappa-B p65 subunit, Nuclear factor of kappa light polypeptide gene enhancer in B-cells 3, RELA, NFKB3
Calculated MW	60219
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
Subcellular Localization	Nucleus. Cytoplasm. Colocalized with DDX1 in the nucleus upon TNF-alpha induction (By similarity). Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B). Colocalizes with GFI1 in the nucleus after LPS stimulation. .
Source	Eukaryota
Protein Name	Transcription factor p65
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human NF-kB p65(116-131aa AISQRIQTNNNPFQVP), identical to the related rat sequence, and different from the related mouse sequence by one amino acid.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20° C for one year. After reconstitution, at 4° C for one month. It can also

Sequence Similarities

be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.
Contains 1 RHD (Rel-like) domain.

Protein Information

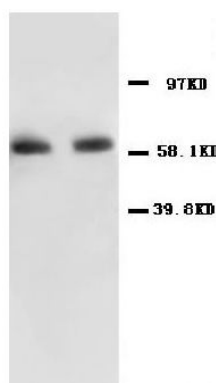
Name	RELA
Synonyms	NFKB3
Function	NF-kappa-B is a pleiotropic transcription factor present in almost all cell types and is the endpoint of a series of signal transduction events that are initiated by a vast array of stimuli related to many biological processes such as inflammation, immunity, differentiation, 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 heterodimeric RELA-NFKB1 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. The NF-kappa-B heterodimeric RELA-NFKB1 and RELA-REL complexes, for instance, function as transcriptional activators. 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. The inhibitory effect of I- kappa-B on NF-kappa-B through retention in the cytoplasm is exerted primarily through the interaction with RELA. RELA shows a weak DNA- binding site which could contribute directly to DNA binding in the NF- kappa-B complex. Besides its activity as a direct transcriptional activator, it is also able to modulate promoters accessibility to transcription factors and thereby indirectly regulate gene expression. Associates with chromatin at the NF-kappa-B promoter region via association with DDX1. Essential for cytokine gene expression in T- cells (PubMed:15790681). The NF-kappa-B homodimeric RELA-RELA complex appears to be involved in invasin-mediated activation of IL-8 expression. Key transcription factor regulating the IFN response during SARS-CoV-2 infection (PubMed:33440148).
Cellular Location	Nucleus. Cytoplasm Note=Nuclear, but also found in the cytoplasm in an inactive form complexed to an inhibitor (I-kappa-B) (PubMed:1493333). Colocalized with DDX1 in the nucleus upon TNF induction (PubMed:19058135) Colocalizes with GFI1 in the nucleus after LPS stimulation (PubMed:20547752). Translocation to the nucleus is impaired in L.monocytogenes infection (PubMed:20855622)

Background

The p65(RELA) heterodimer is the most abundant form of NFKB. This gene is located on 11q13, which consists of 10 exons and spans about 8.1 kb of DNA. In rat sciatic nerves, the expression of the activated p65 subunit of NFKB was high in the nuclei of premyelinating Schwann cells and then progressively declined until it was nearly absent in adults. The transcriptional activity of NF-kappa-B is stimulated upon phosphorylation of its p65 subunit on serine-276 by protein kinase A(PKA). The transcriptional coactivator

CBP/p300 associates with NF-kappa-B p65 through 2 sites, an N-terminal domain that interacts with the C-terminal region of unphosphorylated p65, and a second domain that only interacts with p65 phosphorylated on serine-276.

Images



Anti-NF-kB p65 antibody, ABO10580, Western blotting
All lanes: Anti NF-kB p65 (ABO10580) at 0.5ug/ml
Lane 1: Human Colon Cancer Tissue Lysate at 50ug
Lane 2: HELA Whole Cell Lysate at 40ug
Predicted bind size: 65KD
Observed bind size: 65KD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.