

# Anti-RELA / NFKB p65 Antibody (aa435-484)

Rabbit Anti Human Polyclonal Antibody Catalog # ALS18021

### **Specification**

### Anti-RELA / NFKB p65 Antibody (aa435-484) - Product Information

Application WB, IHC-P, E
Primary Accession 004206

Predicted Human, Mouse, Rat

Host Rabbit
Clonality Polyclonal

Isotype IgG
Calculated MW 60219

## Anti-RELA / NFKB p65 Antibody (aa435-484) - Additional Information

**Gene ID 5970** 

Alias Symbol RELA

**Other Names** 

RELA, NF-kappa-B p65delta3, NFKB3, p65, Transcription factor p65

## **Target/Specificity**

NF-kappaB p65 (Ab-468) Antibody detects endogenous levels of total NF-kappaB p65 protein.

**Reconstitution & Storage** 

Immunoaffinity purified

# **Precautions**

Anti-RELA / NFKB p65 Antibody (aa435-484) is for research use only and not for use in diagnostic or therapeutic procedures.

#### Anti-RELA / NFKB p65 Antibody (aa435-484) - 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. Beside 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:<a href="http://www.uniprot.org/citations/15790681" target="\_blank">15790681</a>/a>). 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:<a href="http://www.uniprot.org/citations/33440148" target=" blank">33440148</a>).

#### **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-alpha 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)

## Anti-RELA / NFKB p65 Antibody (aa435-484) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-RELA / NFKB p65 Antibody (aa435-484) - Images