

**RELA Antibody (C-term S536)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP20211b**

**Specification**

**RELA Antibody (C-term S536) - Product Information**

Application	WB,E
Primary Accession	<a href="#">Q04206</a>
Other Accession	<a href="#">Q04207</a> , <a href="#">NP_001138610.1</a> , <a href="#">NP_068810.3</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	60219
Antigen Region	516-542

**RELA Antibody (C-term S536) - 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

**Target/Specificity**

This RELA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 516-542 amino acids from the C-terminal region of human RELA.

**Dilution**

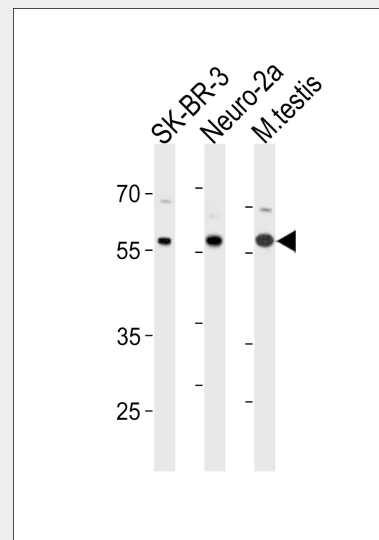
WB~~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw



RELA Antibody (pS536) (Cat. #AP20211b) western blot analysis in SK-BR-3, mouse Neuro-2a cell line and mouse testis tissue lysates (35ug/lane). This demonstrates the RELA antibody detected the RELA protein (arrow).

**RELA Antibody (C-term S536) - Background**

NFKB1 (MIM 164011) or NFKB2 (MIM 164012) is bound to REL (MIM 164910), RELA, or RELB (MIM 604758) to form the NFKB complex. The p50 (NFKB1)/p65 (RELA) heterodimer is the most abundant form of NFKB. The NFKB complex is inhibited by I-kappa-B proteins (NFKBIA, MIM 164008 or NFKBIB, MIM 604495), which inactivate NFKB by trapping it in the cytoplasm. Phosphorylation of serine residues on the I-kappa-B proteins by kinases (IKBKA, MIM 600664, or IKBKB, MIM 603258) marks them for destruction via the ubiquitination pathway, thereby allowing activation of the NFKB complex. Activated NFKB

cycles.

#### **Precautions**

RELA Antibody (C-term S536) is for research use only and not for use in diagnostic or therapeutic procedures.

#### **RELA Antibody (C-term S536) - 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

complex translocates into the nucleus and binds DNA at kappa-B-binding motifs such as 5-prime GGGRNNYYCC 3-prime or 5-prime HGGARNYYCC 3-prime (where H is A, C, or T; R is an A or G purine; and Y is a C or T pyrimidine).

#### **RELA Antibody (C-term S536) - References**

Pan, W.W., et al. J. Biol. Chem. 285(45):34348-34354(2010)  
Tago, K., et al. J. Biol. Chem. 285(40):30622-30633(2010)  
Park, J.S., et al. Oncol. Rep. 24(3):709-714(2010)  
Yu, Z.H., et al. Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi 26(7):650-652(2010)  
Rohwer, N., et al. PLoS ONE 5 (8), E12038 (2010) :

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>). The NF- $\kappa$ B homodimeric RELA-RELA complex appears to be involved in invasion-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)

#### **RELA Antibody (C-term S536) - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)