

Product datasheet for **AP02554PU-S**

NF-κB p65 (RELA) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	Western Blot: 1/500 - 1/1000; Incubate membrane with diluted antibody in 5% nonfat milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight. Immunohistochemistry on paraffin sections: 1/50 - 1/100. Immunofluorescence: 1/100 - 1/200.
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic non-phosphopeptide derived from human NF-κB p65 around the phosphorylation site of serine 276 (R-P-SP-D-R).
Specificity:	NF-κappaB p65 antibody detects endogenous levels of total NF-κB p65 protein.
Formulation:	PBS(without Mg ²⁺ and Ca ²⁺), pH 7.4 containing 150mM NaCl, 0.02% sodium azide and 50% glycerol State: Aff - Purified State: Liquid purified IgG fraction
Concentration:	lot specific
Purification:	Affinity chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	RELA proto-oncogene, NF-κB subunit
Database Link:	Entrez Gene 5970 Human Q04206



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Background:

NFκB (Nuclear Factor NF-kappa-B) is a pleiotropic transcription factor that plays a role in many biological processes, including inflammation, immunity, differentiation, cell growth, tumorigenesis, and apoptosis. It is found as a homo- or heterodimeric complex containing the Rel-like domain containing proteins NFκB p65 (RELA/p65), RELB, NFκB1/p105, NFκB1/p50, REL and NFκB2/p52. The heterodimeric NFκB p65/p50 complex is the most abundant one. The dimers bind to kappa-B sites at their target genes, with the affinity of the interaction dependent on the subunit composition of the dimer. Furthermore, different dimers act as transcriptional activators or repressors, with the NFκB p65/p50 and p65-c-Rel complexes acting as activators.

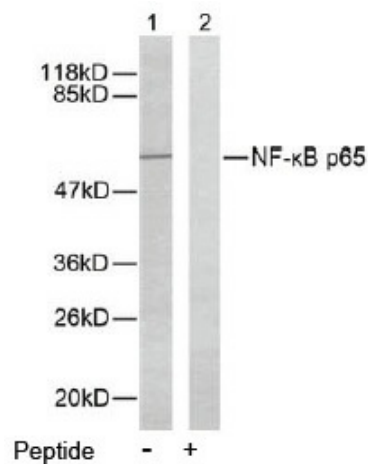
NFκB activity is controlled by several different mechanisms, including post-translational modifications, subcellular localisation and interactions with other coactivators or corepressors. NFκB complexes are held in the cytoplasm in an inactive state by interaction with members of the NFκB inhibitor (IκB) family. Typically, phosphorylation of IκB by IκB kinases (IKKs) in response to different activators leads to degradation of the inhibitor, allowing NFκB to translocate into the nucleus. The inhibitory effect of IκBs is primarily exerted through their interaction with NFκB p65.

NFκB p65 is ubiquitinated leading to its proteosomal degradation, which is required for termination of the NFκB response. Phosphorylation of NFκB p65 on S536 stimulates acetylation of K310 by CBP, enhancing transcriptional activity. NFκB p65 is also acetylated at K122, enhancing DNA binding and impairing the interaction with NFκBIA. The protein is deacetylated by HDAC3.

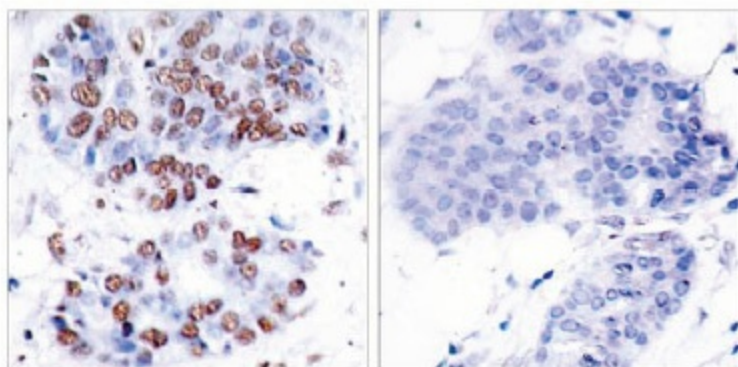
Invasion of a host by a pathogen is frequently associated with the activation of NF-κB, which coordinates various aspects of immune function required for resistance to infection.

Synonyms:

NF kappa B p65, NFκB p65, Transcription factor p65, Rel A, NFκB3

Product images:


Western blot analysis of extracts from HeLa cells using NF-κB p65 antibody.

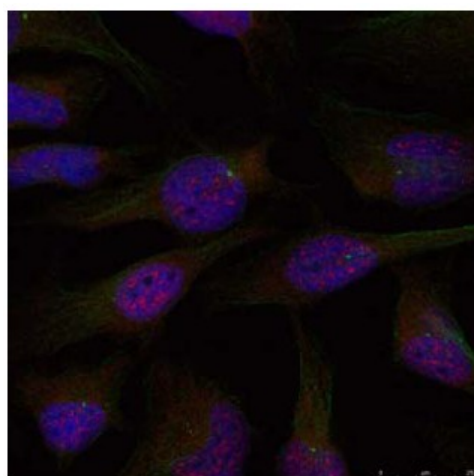


Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using NF-κB p65 antibody.

Peptide

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Immunofluorescence staining of methanol-fixed HeLa cells using NFκappaB-p65 Antibody