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Datasheet for 600-401-264

NFkB p65 phospho S276 Antibody

Overview

Description:	Anti-NFKB p65 (Rel A) pS276 (RABBIT) Antibody - 600-401-264
Item No.:	600-401-264
Size:	100 µg
Applications:	ELISA, WB, IF
Reactivity:	Human
Host Species:	Rabbit

Product Details

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), cRel, 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. Low levels of p52 and p50 homodimers can also exist in cells. The heterodimers of p52/p65 and p50/p65 are regulated by physical inactivation in the cytoplasm by IkB-alpha. IkB-alpha binds to the p65 subunit preventing nuclear localization and DNA binding. Activators mediate a rapid phosphorylation of IkB by IkB kinase (IKK) which results in subsequent ubiquitination and proteolytic degradation. NFkB is then transported to the nucleus, where it activates transcription of target genes through binding to NFkB target sequences within the promoter. The HTLV-I protein Tax can induce constitutive NFkB activation through phosphorylation of both IkB-alpha and IkB-beta. The transforming protein Tax inhibits p53 transcriptional activity through the NFkB signaling pathway, specifically via the p65 (RelA) subunit.
Synonyms:	rabbit anti-NFKB p65 pS276 antibody, rabbit anti-p65 antibody, rabbit anti-RelA antibody, NFKB, NFkß, NF-kB, NF-kappaB, NFkappaB, Transcription factor p65, Nuclear factor NF-kappa-B p65 subunit, Nuclear factor of kappa light polypeptide gene enhancer in B-cells 3, RELA, NFKB3
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	RELA
Reactivity:	Human
PTM Specificity:	Phosphorylation
Immunogen Type:	Conjugated Peptide
Immunogen:	NFkB p65 (Rel A) peptide corresponding to an internal region near phospho Serine 276 of the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).
Purity/Specificity:	Rabbit Anti-NFKB p65 (RelA) pS276 Antibody was prepared from monospecific antiserum by immunoaffinity purification. Antiserum was first purified against the phosphorylated form of the immunizing peptide. The resultant affinity purified antibody was then cross-adsorbed against the non-phosphorylated form of the immunizing peptide. This phospho specific polyclonal antibody is specific for phosphorylated pS276 human p65. Reactivity with non-phosphorylated pS267 is minimal. Cross reactivity with pS276 phosphorylated p65 from mouse, rat or other species has not been determined.
Relevant Links:	• UniProtKB - Q04206 • NCBI - 223468676 • GeneID - 5970

Application Details

Tested Applications:	ELISA, WB
Suggested Applications:	IF (Based on references)
Application Note:	Anti-NFKB phospho specific polyclonal antibody reacts with human pS276 p65 and shows minimal reactivity when tested by western blot with non-phosphorylated p65 and minimal reactivity when tested by ELISA against the non-phosphorylated form of the immunizing peptide. For immunoblotting a 1:1,000 dilution is recommended. A 65 kDa band corresponding to human p65 is detected. HeLa cells or TNF inducible KBM-5 cells can be used as a positive control. Although not tested, this antibody is likely functional in immunohistochemistry and immunoprecipitation.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000 - 1:25,000
IHC:	User Optimized
IP:	User Optimized

WB:	1:1,000

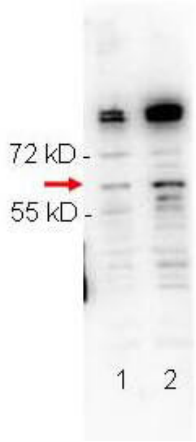
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
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.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Rockland Affinity purified Anti-NFKB p65 (Rel A) pS276 (p/n 600-401-264, lot 24040) was probed against Normal (Lane 1) and TNF alpha (Lane 2) Stimulated HeLa whole cell lysates. A band was observed between 55 and 72 kD corresponding to the expected MW of NFkB p65. The observed higher MW bands have not been characterized.

References

- Ryu, S et al. Suppression of Propionibacterium acnes Infection and the Associated Inflammatory Response by the Antimicrobial Peptide P5 in Mice. *PloS One* (2015)
- Ashikawa et al. Piceatannol inhibits TNF-induced NF-kappaB activation and NF-kappaB-mediated gene expression through suppression of IkappaBalpha kinase and p65 phosphorylation. *J Immunol* (2002)

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