Datasheet for ABIN129575

anti-NF-kB p65 antibody (pSer536)

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Overview

Quantity:	100 µg
Target:	NF-kB p65 (NFkBP65)
Binding Specificity:	pSer536
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA

Product Details

Purpose:	NFkB p65 phospho S536 Antibody
Immunogen:	Immunogen: This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a c-terminal region near phospho Serine S536 of human p65 (RelA) protein. Immunogen Type: Conjugated Peptide
Isotype:	IgG
Cross-Reactivity (Details):	This antibody is specific for human p65 (RelA) protein phosphorylated at S536.
Characteristics:	Synonyms: rabbit anti-NFKB p65 pS536 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
Purification:	This product was affinity purified from monospecific antiserum by immunoaffinity

Product Details

	chromatography using phospho-peptide coupled to agarose beads followed by solid phase adsorption against nonphospho-peptide.
Sterility:	Sterile filtered

Target Details

Target:	NF-kB p65 (NFkBP65)
Alternative Name:	RELA (NFkBP65 Products)
Background:	Background: This antibody is designed, produced, and validated as part of a collaboration with the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. 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. Lowlevels 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. The inhibition of p53 activity is dependent upon phosphorylation of p65 (RelA) at S536 by the upstream kinase IKKβ.
Gene ID:	5970, 223468676
UniProt:	Q04206
Pathways:	NF-kappaB Signaling, RTK Signaling, TCR Signaling, TLR Signaling, Fc-epsilon Receptor Signaling Pathway, Neurotrophin Signaling Pathway, Activation of Innate immune Response, Cellular Response to Molecule of Bacterial Origin, Hepatitis C, Toll-Like Receptors Cascades,

Target Details

	S100 Proteins

Application Details

Application Notes:	Immunohistochemistry Dilution: 5 µg/mL Application Note: This affinity purified antibody has been tested for use in ELISA, immunohistochemistry and western blotting. Specific conditions for reactivity should be optimized by the end user. By western blot, a band approximately 65 kDa in size corresponding to phosphorylated p65 (RelA) protein is expected in the appropriate cell lysate or extract. This phospho-specific polyclonal antibody reacts with human p65 (RelA) pS536 and shows minimal reactivity by western blot with non-phosphorylated p65 (RelA) and minimal reactivity by ELISA against the non-phosphorylated form of the immunizing peptide. Western Blot Dilution: 1:200 - 1:2,000 ELISA Dilution: 1:1,000 - 1:6,000 Other: User Optimized
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1.0 mg/mL
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: None Preservative: 0.01 % (w/v) Sodium Azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	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.
Expiry Date:	12 months

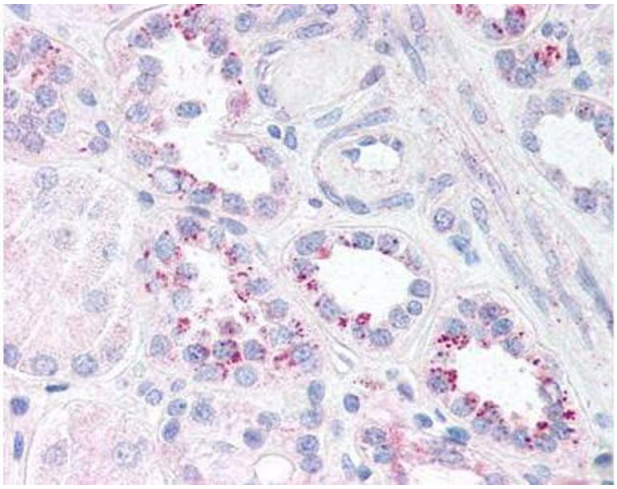
Publications

Product cited in:

Nakazawa, Oikawa, Ishii, Ayaki, Takahashi, Takeda, Ishitani, Kamei, Takeyoshi, Kawakami, Iwai, Hatada, Sawasaki, Ito, Nureki, Tokunaga: "Linear ubiquitination is involved in the pathogenesis of optineurin-associated amyotrophic lateral sclerosis." in: **Nature communications**, Vol. 7, pp. 12547, (2016) (PubMed).

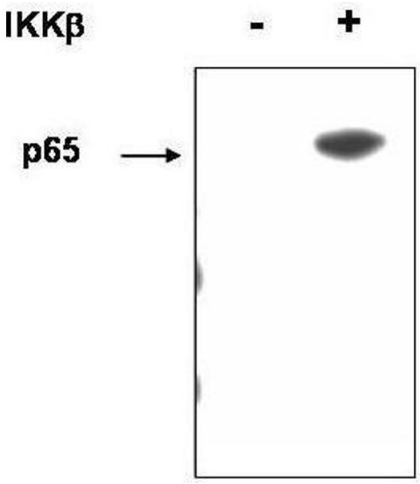
Manna, Aggarwal, Sethi, Aggarwal, Ramesh et al.: "Morin (3,5,7,2',4'-Pentahydroxyflavone) abolishes nuclear factor-kappaB activation induced by various carcinogens and inflammatory stimuli, leading to suppression of nuclear factor-kappaB-regulated ..." in: **Clinical cancer research : an official journal of the American Association for Cancer Research**, Vol. 13, Issue 7, pp. 2290-7, (2007) (PubMed).

Images



Immunohistochemistry

Image 1. affinity purified anti-p65 (RelA) pS536 antibody was used at 5.0 ?g/ml to detect signal in a variety of tissues including multi-human, multi-brain and multi-cancer slides. This image shows moderate positive staining of human kidney distal tubules and collecting ducts. Tissue was formalin-fixed and paraffin embedded. The image shows localization of the antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain. Personal Communication, Tina Roush, LifeSpanBiosciences, Seattle, WA.



Western Blotting

Image 2. Western blot using affinity purified anti-p65 (RelA) pS536 antibody shows detection of p65 phosphorylated at S536. The control blot (left lane) contains 100 ng of purified p65-GST fusion protein. The band is seen (right lane) when this protein is phosphorylated at S536 by IKKß. Personal Communication. J. Brady, NCI, Bethesda, MD.