PRODUCT INFORMATION



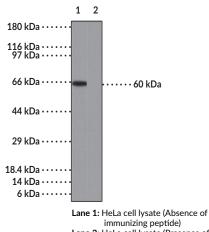
NF-κB (p65) Polyclonal Antibody (aa 2-17)

Item No. 13757

Overview and Properties

Contents:	This vial contains 100 μg of protein G-purified IgG.
Synonyms:	Nuclear Factor NF-κB (p65) subunit, Transcription Factor p65
Immunogen:	Synthetic peptide from the N-terminal region of human NF-κB (p65)
Species Reactivity	: (+) Human, chimpanzee, monkey; other species not tested
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	200 μ l PBS, with 0.2% gelatin and 0.05% sodium azide
Host:	Rabbit
Applications:	Western blot (WB); the recommended starting concentration is $0.5-2 \mu g/ml$. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 2: HeLa cell lysate (Presence of immunizing peptide)

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

NF-κB p65 is a ubiquitously expressed transcription factor that is a subunit of the NF-κB complex and is encoded by the *RELA* gene in humans.¹ It is composed of an N-terminal Rel homology domain, which contains the nuclear localization signal (NLS), and mediates dimerization, nuclear localization, and DNA and protein interactions, and two C-terminal transactivation domains that are subject to a variety of post-translational modifications and regulate the transcriptional activity of p65.^{1,2} NF-κB p65 regulates the expression of a large number of genes in response to inflammatory and environmental cues that play critical roles in innate and adaptive immunity and cellular differentiation.² Silencing of *Rela* induces tumor cell apoptosis in a murine Lewis lung carcinoma model, and *RELA* silencing in THP-1 monocytes decreases secreted levels of IL-1β and TNF-α induced by LPS.^{3,4} Genome-wide deletion of *Rela* in mice is embryonic lethal.⁵ NF-κB p65 is overexpressed in the inflamed joints of patients with rheumatoid arthritis, and naïve CD4 T cells isolated from the whole blood of patients with multiple sclerosis have increased phosphorylation of NF-κB p65.^{6,7} Cayman's NF-κB (p65) Polyclonal Antibody (aa 2-17) can be used for Western blot (WB) applications. The antibody recognizes amino acids 2-17 of NF-κB (p65) at 60 kDa from human, chimpanzee, and monkey samples.

References

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- Wu, C., Zhao, J., Zhu, G., et al. SiRNA directed against NF-κB inhibits mononuclear macrophage cells releasing proinflammatory cytokines in vitro. Mol. Med. Rep. 16(6), 9060-9066 (2017).
- 5. Beg, A.A. and Baltimore, D. An essential role for NF-κB in preventing TNF-α-induced cell death. *Science* **274(5288)**, 782-784 (1996).
- 6. Makarov, S.S. NF-κB in rheumatoid arthritis: A pivotal regulator of inflammation, hyperplasia, and tissue destruction. *Arthritis Res.* **3(4)**, 200-206 (2001).
- 7. Housley, W.J., Fernandez, S.D., Vera, K., *et al.* Genetic variants associated with autoimmunity drive NFκB signaling and responses to inflammatory stimuli. *Sci. Transl. Med.* **7(291)**, 291ra93 (2015).

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