# **PRODUCT** INFORMATION



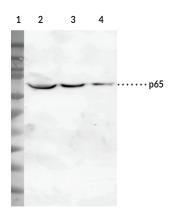
# NF-κB (p65) Polyclonal Antibody

Item No. 20671

# **Overview and Properties**

Contents: Synonyms: Immunogen:	This vial contains 500 μl of peptide affinity-purified polyclonal antibody. Nuclear Factor NF-κB (p65) subunit, Transcription Factor p65 Synthetic peptide from the C-Terminal region of human NF-κB (p65)
Species Reactivity	: (+) Human, other species not tested
Uniprot No.:	Q04206
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥ 3 years
Storage Buffer:	TBS, pH 7.4, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide
Host:	Rabbit
Isotype:	lgG
Applications:	ELISA and Western blot (WB); the recommended starting dilution for ELISA and WB is 1:200. Other applications were not tested, therefore optimal working concentration/ dilution should be determined empirically.

### Image



Lane 1: Standard Lane 2: HEK293 Cell lysate Lane 3: Jurkat Cell lysate Lane 4: A549 Cell lysate

Primary Antibody: NF-kB (p65) Polyclonal Antibody (Item No. 20671) Secendary Antibody: Goat Anti-Rabbit IgG HRP (Item No. 10004301) Developed by ECL

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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# CAYMAN CHEMICAL

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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.<sup>1</sup> It is composed of an N-terminal Rel homology domain, which 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.<sup>1,2</sup> 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.<sup>2</sup> Genome-wide deletion of Rela in mice is embryonic lethal.<sup>3</sup> Silencing of NF-κB p65 induces tumor cell apoptosis in a murine Lewis lung carcinoma model and decreases secreted levels of IL-1 $\beta$  and TNF- $\alpha$  induced by LPS in THP-1 monocytes.<sup>4,5</sup> NF-κB p65 is overexpressed in 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.<sup>6,7</sup> Cayman's NF-κB p65 (human, recombinant) protein can be used for Western blot and ELISA applications. Cayman's NF-κB at 65 kDa from human samples.

## Reference

- 1. Peterson, J.M., Bakkar, N., and Guttridge, D.C. NF-κB signaling in skeletal muscle health and disease. *Curr. Top. Dev. Biol.* **96**, 85-119 (2011).
- 2. Giridharan, S. and Srinivasan, M. Mechanisms of NF-κB p65 and strategies for therapeutic manipulation. *J. Inflamm. Res.* **11**, 407-419 (2018).
- 3. 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).
- 4. Qu, Y., Zhang, X., and Wu, R. Knockdown of NF-κB p65 subunit expression suppresses growth of nude mouse lung tumor cell xenografts by activation of Bax apoptotic pathway. *Neoplasma* **62(1)**, 34-40 (2015).
- 5. 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).
- 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).
- 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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