

PRODUCT INFORMATION

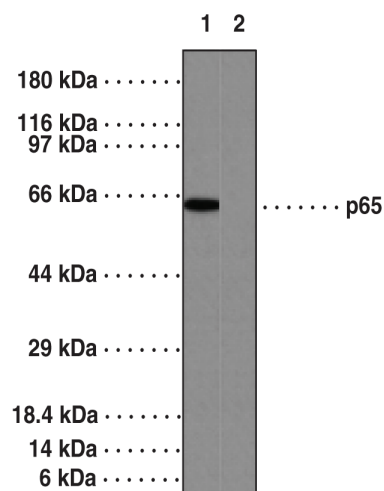
NF-κB (p65) Monoclonal Antibody - Biotinylated (Clone 112A1021)

Item No. 13756

Overview and Properties

Contents:	This vial contains 100 μg of protein G-purified IgG in 200 μl PBS containing 0.05% sodium azide.
Immunogen:	Synthetic peptide corresponding to human NF-κB (p65)
Cross Reactivity:	(+) Human, mouse, rat
Form:	Liquid
Storage:	4°C
Stability:	≥6 months
Clone:	112A1021
Host:	Mouse
Isotype:	IgG1k
Application:	Suitable for ELISA, working concentration/dilution should be determined empirically.

Image



Lane 1: HeLa cell lysate (Absence of immunizing peptide)
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- κ B p65 is a ubiquitously expressed transcription factor that is a subunit of the NF- κ B 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- κ B 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-1 β and TNF- α induced by LPS.^{3,4} Genome-wide deletion of *Rela* in mice is embryonic lethal.⁵ NF- κ B 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- κ B p65.^{6,7} Cayman's NF- κ B (p65) Monoclonal Antibody - Biotinylated (Clone 112A1021) can be used for ELISA applications. The antibody recognizes NF- κ B (p65) at 65 kDa from human, mouse, and rat samples.

References

1. Peterson, J.M., Bakkar, N., and Guttridge, D.C. NF- κ B signaling in skeletal muscle health and disease. *Curr. Top. Dev. Biol.* **96**, 85-119 (2011).
2. Giridharan, S., and Srinivasan, M. Mechanisms of NF- κ B p65 and strategies for therapeutic manipulation. *J. Inflamm. Res.* **11**, 407-419 (2018).
3. Qu, Y., Zhang, X., and Wu, R. Knockdown of NF- κ B p65 subunit expression suppresses growth of nude mouse lung tumor cell xenografts by activation of Bax apoptotic pathway. *Neoplasma* **62(1)**, 34-40 (2015).
4. Wu, C., Zhao, J., Zhu, G., et al. SiRNA directed against NF- κ B 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- κ B in preventing TNF- α -induced cell death. *Science* **274(5288)**, 782-784 (1996).
6. Makarov, S.S. NF- κ B 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 NF κ B signaling and responses to inflammatory stimuli. *Sci. Transl. Med.* **7(291)**, 291ra93 (2015).

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