

# NFκB p65 (112A1021): sc-56735

## BACKGROUND

Proteins encoded by the v-Rel viral oncogene and its cellular homolog, c-Rel, are members of a family of transcription factors that include the two subunits of the transcription factor NFκB (p50 and p65) and the *Drosophila* maternal morphogen, dorsal. Both proteins specifically bind to DNA sequences that are the same or slight variations of the 10 bp κB sequence in the immunoglobulin κ light chain enhancer. This same sequence is also present in a number of other cellular and viral enhancers. The DNA binding activity of NFκB is activated and rapidly transported from the cytoplasm to the nucleus in cells exposed to mitogens or growth factors. cDNAs encoding precursors for two distinct proteins of the same size have been described, designated p105 and p100, respectively. The p105 precursor contains p50 at its amino-terminus and a C-terminal region that, when expressed as a separate molecule, designated pdl, binds to p50 and regulates its activity.

## REFERENCES

- Meyer, R., et al. 1991. Cloning of the DNA-binding subunit of human nuclear factor κB: the level of its mRNA is strongly regulated by phorbol ester or tumor necrosis factor α. *Proc. Natl. Acad. Sci. USA* 88: 966-970.
- Schmid, R.M., et al. 1991. Cloning of an NFκB subunit which stimulates HIV transcription in synergy with p65. *Nature* 352: 733-736.

## CHROMOSOMAL LOCATION

Genetic locus: RELA (human) mapping to 11q13.1; Rela (mouse) mapping to 19 A.

## SOURCE

NFκB p65 (112A1021) is a mouse monoclonal antibody raised against amino acids 526-539 of NFκB p65 of human origin.

## PRODUCT

Each vial contains 100 μg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

NFκB p65 (112A1021) is recommended for detection of NFκB p65 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for NFκB p65 siRNA (h): sc-29410, NFκB p65 siRNA (m): sc-29411, NFκB p65 shRNA Plasmid (h): sc-29410-SH, NFκB p65 shRNA Plasmid (m): sc-29411-SH, NFκB p65 shRNA (h) Lentiviral Particles: sc-29410-V and NFκB p65 shRNA (m) Lentiviral Particles: sc-29411-V.

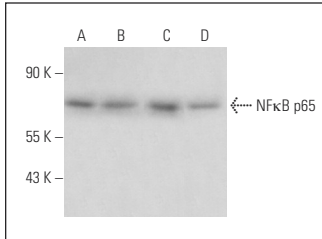
Molecular Weight of NFκB: 65 kDa.

Positive Controls: NFκB p65 (m): 293T Lysate: sc-122027, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

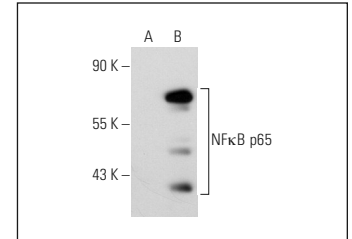
## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



NFκB p65 (112A1021): sc-56735. Western blot analysis of NFκB p65 expression in K-562 (A), Jurkat (B), HUV-EC-C (C) and HeLa (D) whole cell lysates.



NFκB p65 (112A1021): sc-56735. Western blot analysis of NFκB p65 expression in non-transfected: sc-117752 (A) and mouse NFκB p65 transfected: sc-122027 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Lixuan, Z., et al. 2010. Baicalin attenuates inflammation by inhibiting NFκB activation in cigarette smoke induced inflammatory models. *Pulm. Pharmacol. Ther.* 23: 411-419.
- Gao, H. and Wang, J. 2016. Andrographolide inhibits multiple myeloma cells by inhibiting the TLR4/NFκB signaling pathway. *Mol. Med. Rep.* 13: 1827-1832.
- Patras, L., et al. 2016. Dual role of macrophages in the response of C26 colon carcinoma cells to 5-fluorouracil administration. *Oncol. Lett.* 12: 1183-1191.
- Yuan, B., et al. 2017. Isolation of a novel bioactive protein from an edible mushroom *Pleurotus eryngii* and its anti-inflammatory potential. *Food Funct.* 8: 2175-2183.
- Kotla, S., et al. 2017. Heterodimers of the transcriptional factors NFATc3 and FosB mediate tissue factor expression for 15S-hydroxyeicosate-traenoic acid-induced monocyte trafficking. *J. Biol. Chem.* 292: 14885-14901.
- Zhang, X., et al. 2017. Imperatorin possesses notable anti-inflammatory activity *in vitro* and *in vivo* through inhibition of the NFκB pathway. *Mol. Med. Rep.* 16: 8619-8626.
- Du, M., et al. 2017. Serum retinol-binding protein-induced endothelial inflammation is mediated through the activation of toll-like receptor 4. *Mol. Vis.* 23: 185-197.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.



See **NFκB p65 (F-6): sc-8008** for NFκB p65 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488, Alexa Fluor® 594, Alexa Fluor® 647, Alexa Fluor® 680 and Alexa Fluor® 790.