

# p-NFκB p65 (Ser 311): sc-33039

## 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 NFκB is subsequently transported from the cytoplasm to the nucleus in cells exposed to mitogens or growth factors. cDNAs encoding precursors for two distinct proteins have been described, designated p105 and p100. The p105 precursor contains p50 at its amino-terminus and a C-terminal region that when expressed as a separate molecule, designated PDI, binds to p50 and regulates its activity. The NFκB transcription factor is a protein complex consisting of a DNA binding subunit and an associated protein. The DNA binding subunit, also referred to as RelA, is functionally related to c-Rel p75 and RelB p68. NFκB p65 is phosphorylated at Serine 276 as a response to TNF.

## CHROMOSOMAL LOCATION

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

## SOURCE

p-NFκB p65 (Ser 311) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 311 phosphorylated NFκB p65 of human origin.

## PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-33039 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

p-NFκB p65 (Ser 311) is recommended for detection of Ser 311 phosphorylated NFκB p65 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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 p-NFκB p65: 65 kDa.

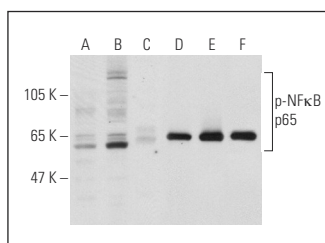
## STORAGE

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

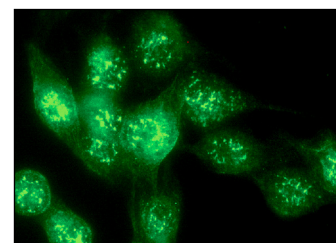
## RESEARCH USE

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

## DATA



Western blot analysis of NFκB p65 phosphorylation in untreated (A, D), TNFα and calyculin A treated (B, E) and TNFα, calyculin and lambda protein phosphatase (sc-200312A) treated (C, F) HeLa whole cell lysates. Antibodies tested include p-NFκB p65 (Ser 311): sc-33039 (A, B, C) and NFκB p65 (C-20): sc-372 (D, E, F).



p-NFκB p65 (Ser 311): sc-33039. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

## SELECT PRODUCT CITATIONS

- Ritter, B., et al. 2010. Differential effects of multiplicity of infection on *Helicobacter pylori*-induced signaling pathways and interleukin-8 gene transcription. *J. Clin. Immunol.* 31: 60-68.
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- Lee, Y.H., et al. 2012. Modulation of photochemical damage in normal and malignant cells by naturally occurring compounds. *Photochem. Photobiol.* 88: 1385-1395.
- Piechota-Polanczyk, A., et al. 2012. Simvastatin decreases free radicals formation in the human abdominal aortic aneurysm wall via NFκB. *Eur. J. Vasc. Endovasc. Surg.* 44: 133-137.
- Zhu, H.J., et al. 2012. Impaired N-cadherin-mediated adhesion increases the risk of inducible ventricular arrhythmias in isolated rat hearts. *Sci. Res. Essays* 7: 2983-2991.
- Vinay, P.V., et al. 2013. Geldanamycin combination with colcemid induces mitotic arrest through stabilization of bubR1 mitotic kinase in human tumor cells. *J. Cancer Ther.* 4: 709-719.
- Shin, E.S., et al. 2014. High glucose alters retinal astrocytes phenotype through increased production of inflammatory cytokines and oxidative stress. *PLoS ONE* 9: e103148.



Try **p-NFκB p65 (A-8): sc-166748** or **p-NFκB p65 (37.Ser 311): sc-135768**, our highly recommended monoclonal alternatives to p-NFκB p65 (Ser 311).