

# NFκB p65 (F-6): sc-8008

## 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 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

NFκB p65 (F-6) is a mouse monoclonal antibody raised against amino acids 1-286 of NFκB p65 of human origin.

## PRODUCT

Each vial contains 200 μg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-8008 X, 200 μg/0.1 ml.

Available as phycoerythrin (sc-8008 PE) or PerCP-Cy5.5 (sc-8008 PCPC5) conjugates for flow cytometry, 100 tests.

Available as agarose conjugate for immunoprecipitation, sc-8008 AC, 500 μg/0.25 ml agarose in 1 ml.

Available as fluorescein (sc-8008 FITC) or rhodamine (sc-8008 TRITC) conjugates for use in immunofluorescence, 200 μg/ml.

Available as Alexa Fluor® 405 (sc-8008 AF405), Alexa Fluor® 488 (sc-8008 AF488) or Alexa Fluor® 647 (sc-8008 AF647) conjugates for flow cytometry or immunofluorescence; 100 μg/2 ml.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

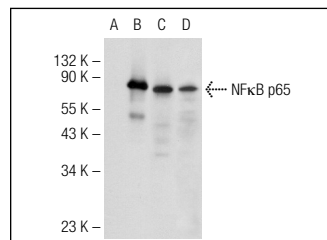
NFκB p65 (F-6) is recommended for detection of NFκB p65 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 μg per 1 x 10<sup>6</sup> cells) 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.

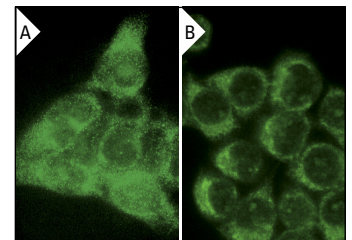
NFκB p65 (F-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Positive Controls: NFκB p65 (m2): 293T Lysate: sc-122028, Jurkat whole cell lysate: sc-2204 or A-431 whole cell lysate: sc-2201.

## DATA



NFκB p65 (F-6): sc-8008. Western blot analysis of NFκB p65 expression in non-transfected 293T: sc-117752 (A), mouse NFκB p65 transfected 293T: sc-122028 (B), HUV-EC-C (C) and NIH/3T3 (D) whole cell lysates.



NFκB p65 (F-6): sc-8008. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoplasmic localization using indirect FITC (A) staining and HeLa cells using direct Alexa Fluor® 488 (B) staining.

## SELECT PRODUCT CITATIONS

- Higashitsuji, H., et al. 2002. A novel protein overexpressed in hepatoma accelerates export of NFκB from the nucleus and inhibits p53-dependent apoptosis. *Cancer Cell* 2: 335-46.
- Kaniowska, D., et al. 2006. Cross-interaction between JC virus agnoprotein and human immunodeficiency virus type 1 (HIV-1) Tat modulates transcription of the HIV-1 long terminal repeat in glial cells. *J. Virol.* 80: 9288-9299.
- Maruyama, K., et al. 2007. c-Fos-deficient mice are susceptible to *Salmonella enterica* serovar typhimurium infection. *Infect. Immun.* 75: 1520-1523.
- Tang, T., et al. 2010. Uncoupling of inflammation and Insulin resistance by NFκB in transgenic mice through elevated energy expenditure. *J. Biol. Chem.* 285: 4637-4644.
- Vykhovanets, E.V., et al. 2011. High-fat diet increases NF-κB signaling in the prostate of reporter mice. *Prostate* 71: 147-156.