

NFκB p65 (6D889): sc-71676

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 of the same size have been described, designated p105 and p100. The p105 precursor contains p50 at its N-terminus and a C-terminal region that when expressed as a separate molecule, designated pΔ, binds to p50 and regulates its activity.

REFERENCES

1. 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.
2. Schmid, R.M., et. al. 1991. Cloning of an NFκB subunit which stimulates HIV transcription in synergy with p65. Nature 352: 733-736.
3. Perkins, N.D., et. al. 1992. Distinct combinations of NFκB subunits determine the specificity of transcriptional activation. Proc. Natl. Acad. Sci. USA 89: 1529-1533.
4. Ballard, D.W., et. al. 1992. The 65 kDa subunit of human NFκB functions as a potent transcriptional activator and a target for v-Rel-mediated repression. Proc. Natl. Acad. Sci. USA 89: 1875-1879.
5. Hatada, E.N., et. al. 1992. The ankyrin repeat domains of the NFκB precursor p105 and the proto-oncogene Bcl-3 act as specific inhibitors of NFκB DNA binding. Proc. Natl. Acad. Sci. USA 89: 2489-2493.
6. Oikonomidou, O., et. al. 2006. Glucocorticoid receptor, nuclear factor κB, activator protein-1 and c-Jun N-terminal kinase in systemic lupus erythematosus patients. Neuroimmunomodulation. 13: 194-204.
7. Doleschall, M., et. al. 2007. Cloning, expression and characterization of the bovine p65 subunit of NFκB. Dev. Comp. Immunol. 31: 945-961.
8. Matthews, et. al. 2007. Dominant-negative activator protein 1 (TAM67) targets cyclooxygenase-2 and osteopontin under conditions in which it specifically inhibits tumorigenesis. Cancer Res. 67: 2430-2438.
9. Tomohiro, T., et. al. 2007. Hypertension aggravates glomerular dysfunction with oxidative stress in a rat model of diabetic nephropathy. Life Sci. 80: 1364-1372.

CHROMOSOMAL LOCATION

Genetic locus: RELA (human) mapping to 11q13.1; Rela (mouse) mapping to 19 B1-3.

SOURCE

NFκB p65 (6D889) is a mouse monoclonal antibody raised against amino acids 526-539 of NFκB p65 of human origin.

PRODUCT

Each vial contains 100 μg IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

NFκB p65 (6D889) is recommended for detection of NFκB p65 of mouse 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 (h2): sc-44212, NFκB p65 siRNA (m): sc-29411 and NFκB p65 siRNA (m2): sc-44213.

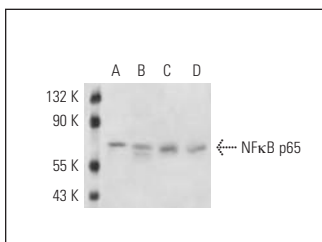
Molecular Weight of NFκB p65: 65 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, A-431 whole cell lysate: sc-2201 or K-562 whole cell lysate: sc-2203.

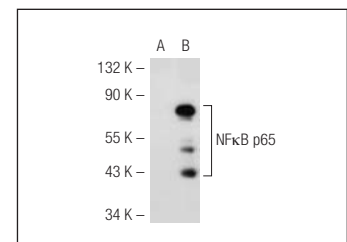
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



NFκB p65 (6D889): sc-71676. Western blot analysis of NFκB p65 expression in K-562 (A), Jurkat (B), HUV-EC-2 (C) and HeLa (D) whole cell lysates.



NFκB p65 (6D889): sc-71676. 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.

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 or our catalog for detailed protocols and support products.