

NFκB p50 (D-17): sc-1192

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. These proteins share sequence homology over a region of 300 amino acids at their NH₂-terminus, the region that contains their DNA binding and dimerization domains. 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. These proteins, designated p105 and p100, are highly related but map on different chromosomes. The p105 (p110) precursor contains p50 at its N-terminus and a C-terminal region that when expressed as a separate molecule, designated Pdl, binds to p50 and regulates its activity.

REFERENCE

- 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.

CHROMOSOMAL LOCATION

Genetic locus: Nfkb1 (mouse) mapping to 3 G3.

SOURCE

NFκB p50 (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of NFκB p50 of mouse 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-1192 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-1192 X, 200 μg/0.1 ml.

APPLICATIONS

NFκB p50 (D-17) is recommended for detection of NFκB p50 and p105 of mouse and rat 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).

NFκB p50 (D-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of NFκB p50: 50 kDa.

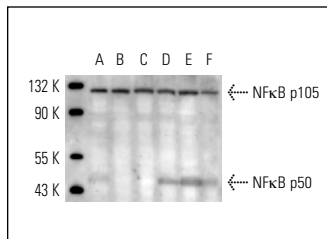
Molecular Weight of NFκB p105: 105 kDa.

Positive Controls: CTLL-2 cell lysate: sc-2242, RAW 264.7 nuclear extract: sc-24961 or NIH/3T3 nuclear extract: sc-2138.

STORAGE

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

DATA



NFκB p50 (D-17): sc-1192. Western blot analysis of NFκB p50 and p105 expression in MM142 (A), WEHI-231 (B), NIH/3T3 (C), RAW 264.7 (D), and KNRK (E) nuclear extracts and CTLL-2 whole cell lysate (F).

SELECT PRODUCT CITATIONS

- Richard, M., et al. 1999. Interleukin-9 regulates NFκB activity through Bcl3 gene induction. Blood 93: 4318-4327.
- Ishibashi, N., et al. 1999. Modulation of chemokine expression during ischemia/reperfusion in transgenic mice overproducing human glutathione peroxidases. J. Immunol. 163: 5666-5677.
- Zhou, L., et al. 2004. Interleukin-10 inhibits interleukin-12 p40 gene transcription by targeting a late event in the activation pathway. Mol. Cell. Biol. 24: 2385-2396.
- Schmidt-Ullrich, R., et al. 2006. NFκB transmits Eda A1/EdaR signalling to activate Shh and cyclin D1 expression, and controls post-initiation hair placode down growth. Development 133: 1045-1057.
- Tone, Y., et al. 2007. OX40 Gene expression is up-regulated by chromatin remodeling in its promoter region containing Sp1/Sp3, YY1, and NFκB binding sites. J. Immunol. 179: 1760-1767.
- Malm, T.M., et al. 2007. Pyrrolidine dithiocarbamate activates Akt and improves spatial learning in APP/PS1 mice without affecting β-amyloid burden. J. Neurosci. 27: 3712-3721.
- Zhan, Y., et al. 2008. Glucocorticoid-induced TNF receptor expression by T cells is reciprocally regulated by NFκB and NFAT. J. Immunol. 181: 5405-5413.

RESEARCH USE

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



Try **NFκB p50 (E-10): sc-8414** or **NFκB p50 (D-6): sc-166588**, our highly recommended monoclonal alternatives to NFκB p50 (D-17). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **NFκB p50 (E-10): sc-8414**.