

# NFκB p50 (NLS): sc-114

## 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 NH<sub>2</sub>-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.

## CHROMOSOMAL LOCATION

Genetic locus: NFKB1 (human) mapping to 4q24; Nfkb1 (mouse) mapping to 3 G3.

## SOURCE

NFκB p50 (NLS) is available as either rabbit (sc-114) or goat (sc-114-G) polyclonal affinity purified antibody raised against a peptide mapping within the NLS region of NFκB p50 of human origin.

## PRODUCT

Each vial contains either 100 μg (sc-114) or 200 μg (sc-114-G) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-114 X, 100 μg/0.1 ml.

Blocking peptide available for competition studies, sc-114 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NFκB p50 (NLS) is recommended for detection of NFκB p50 and p105 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

NFκB p50 (NLS) is also recommended for detection of NFκB p50 and p105 in additional species, including equine, canine, bovine, porcine and avian.

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

Molecular Weight of NFκB p50: 50 kDa.

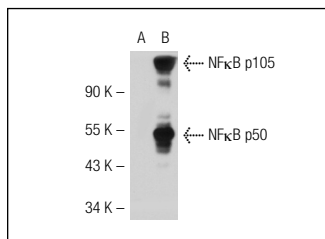
Molecular Weight of NFκB p105: 105 kDa.

Positive Controls: NFκB p50 (h): 293T Lysate: sc-116112, A-431 whole cell lysate: sc-2201 or K-562 whole cell lysate: sc-2203.

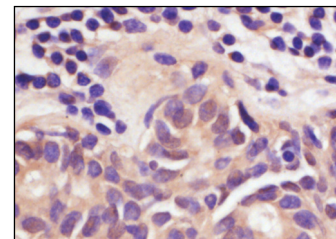
## STORAGE

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

## DATA



NFκB p50 (NLS): sc-114. Western blot analysis of NFκB p50 expression in non-transfected: sc-117752 (A) and human NFκB p50 transfected: sc-116112 (B) 293T whole cell lysates.



NFκB p50 (NLS): sc-114. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tumor showing nuclear and cytoplasmic staining.

## SELECT PRODUCT CITATIONS

- Palmer, G.H., et al. 1997. Parasite-mediated nuclear factor κB regulation in lymphoproliferation caused by *Theileria parva* infection. Proc. Natl. Acad. Sci. USA 94: 12527-12532.
- Priyadarsini, R.V., et al. 2012. Quercetin suppresses cytochrome P450 mediated ROS generation and NFκB activation to inhibit the development of 7,12-dimethylbenz[a]anthracene (DMBA) induced hamster buccal pouch carcinomas. Free Radic. Res. 46: 41-49.
- Lesueur, C., et al. 2012. Glutamine induces nuclear degradation of the NFκB p65 subunit in Caco-2/TC7 cells. Biochimie 94: 806-815.
- Vidya Priyadarsini, R., et al. 2012. Gene expression signature of DMBA-induced hamster buccal pouch carcinomas: modulation by chlorophyllin and ellagic acid. PLoS ONE 7: e34628.
- Liu, F., et al. 2012. NFκB directly regulates Fas transcription to modulate Fas-mediated apoptosis and tumor suppression. J. Biol. Chem. 287: 25530-25540.
- Felix, A.S., et al. 2012. Carotid body remodelling in I-NAME-induced hypertension in the rat. J. Comp. Pathol. 146: 348-356.
- Trivedi, P.P., et al. 2012. Ulcerative colitis-induced hepatic damage in mice: studies on inflammation, fibrosis, oxidative DNA damage and GST-P expression. Chem. Biol. Interact. 201: 19-30.

## 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 (NLS). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **NFκB p50 (E-10): sc-8414**.