### SANTA CRUZ BIOTECHNOLOGY, INC.

# NFκB p50 (N-19): sc-1191



#### 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 NF $\kappa$ B (p50 and p65) and the *Drosophila* maternal morphagen, 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 NF $\kappa$ B 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 PdI, binds to p50 and regulates its activity.

#### CHROMOSOMAL LOCATION

Genetic locus: NFKB1 (human) mapping to 4q24.

#### SOURCE

 $NF_{\kappa}B$  p50 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of  $NF_{\kappa}B$  p50 of human origin.

#### PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1191 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-1191 AC, 500  $\mu g/0.25$  ml agarose in 1 ml.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-1191 X, 200  $\mu g/0.1$  ml.

#### APPLICATIONS

NF $\kappa$ B p50 (N-19) is recommended for detection of NF $\kappa$ B p50 and p105 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

 $NF\kappa B$  p50 (N-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of NFkB p50: 50 kDa.

Molecular Weight of NFkB p105: 105 kDa.

Positive Controls: A-431 whole cell lysate : sc-2201, K-562 whole cell lysate : sc-2203 or HeLa whole cell lysate : sc-2200.

#### **STORAGE**

Store at 4° C, \*\*D0 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



 $NF\kappa B$  p50 (N-19): sc-1191. Western blot analysis of  $NF\kappa B$  p50 and p105 expression in A-431 whole cell luncto

#### **SELECT PRODUCT CITATIONS**

- Shapiro, V.S., et al. 1997. CD28 mediates transcriptional upregulation of the Interleukin-2 (IL-2) promotor through a composite element containing the CD28RE and NF-IL-2B AP-1 sites. Mol. Cell. Biol. 17: 4051-4058.
- Xie, Q.W. 1997. A novel lipopolysaccharide-response element contributes to induction of nitric oxide synthase. J. Biol. Chem. 272: 14867-14872.
- Guasparri, I., et al. 2006. The KSHV oncoprotein vFLIP contains a TRAFinteracting motif and requires TRAF2 and TRAF3 for signalling. EMBO Rep. 7: 114-119.
- Kurbanov, B.M., et al. 2007. Resistance of melanoma cells to TRAIL does not result from upregulation of antiapoptotic proteins by NFκB but is related to downregulation of initiator caspases and DR4. Oncogene 26: 3364-3377.
- El Mjiyad, N., et al. 2007. Varicella-zoster virus modulates NFκB recruitment on selected cellular promoters. J. Virol. 81: 13092-13104.
- Ooi, C.H., et al. 2009. Oncogenic pathway combinations predict clinical prognosis in gastric cancer. PLoS Genet. 5: e1000676.
- Coupienne, I., et al. 2010. How to monitor NFκB activation after photodynamic therapy. Methods Mol. Biol. 635: 79-95.
- Barabutis, N., et al. 2010. Growth hormone releasing hormone induces the expression of nitric oxide synthase. J. Cell. Mol. Med. 15: 1148-1155.
- Braun, F.K., et al. 2012. Nonsteroidal anti-inflammatory drugs induce apoptosis in cutaneous T-cell lymphoma cells and enhance their sensitivity for TNF-related apoptosis-inducing ligand. J. Invest. Dermatol. 132: 429-439.

## MONOS Satisfation Guaranteed

Try NF $\kappa$ B p50 (E-10): sc-8414 or NF $\kappa$ B p50 (D-6): sc-166588, our highly recommended monoclonal aternatives to NF $\kappa$ B p50 (N-19). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see NF $\kappa$ B p50 (E-10): sc-8414.