

# p-NFκB p100 (Ser 866): sc-101742

## 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 NFκB p105 and NFκB p100. The NFκB p105 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. Phosphorylation of Serine 866 and 870 are involved in NFκB p100 processing.

## 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. Davis, N., et al. 1991. Rel-associated pp40: an inhibitor of the rel family of transcription factors. *Science*. 253: 1268-1271.
3. Schmid, R.M., et al. 1991. Cloning of an NFκB subunit which stimulates HIV transcription in synergy with p65. *Nature*. 352: 733-736.
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. Henkel, T., et al. 1992. Intramolecular masking of the nuclear location signal and dimerization domain in the precursor for the p50 NFκB subunit. *Cell* 69: 1121-1133.

## CHROMOSOMAL LOCATION

Genetic locus: NFKB2 (human) mapping to 10q24.32; Nfkb2 (mouse) mapping to 19 C3.

## SOURCE

p-NFκB p100 (Ser 866) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 866 of NFκB p100 of human origin.

## PRODUCT

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

## APPLICATIONS

p-NFκB p100 (Ser 866) is recommended for detection of Ser 866 phosphorylated NFκB p100 of human origin, Ser 865 phosphorylated NFκB p100 of mouse origin, and correspondingly phosphorylated NFκB p100 of 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

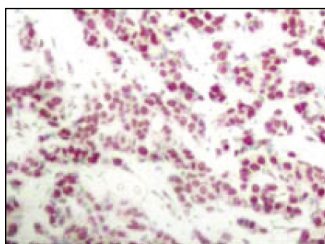
Molecular Weight of p-NFκB p100: 100 kDa.

Positive Controls: human breast carcinoma tissue.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent) and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



p-NFκB p100 (Ser 866): sc-101742. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing nuclear staining.

## SELECT PRODUCT CITATIONS

1. Cai, C., et al. 2011. Classical and alternative nuclear factor-κB pathways: a comparison among normal prostate, benign prostate hyperplasia and prostate cancer. *Pathol. Oncol. Res.* 17: 873-878.

## 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.