SANTA CRUZ BIOTECHNOLOGY, INC.

p-NFκB p105 (4.Ser 932): sc-293141

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 morphagen, dorsal. These proteins share sequence homology over a region of 300 amino acids at their NH_2-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 PdI, 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 κ. 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. 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.
4. Hatada, E.N., et al. 1992. The ankyrin repeat domains of the NFκB precursor p105 and the protooncogene Bcl-3 act as specific inhibitors of NFκB DNA binding. Proc. Natl. Acad. Sci. USA 89: 2489-2493.
5. 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.
6. Beg, A.A., et al. 1995. Embryonic lethality and liver degeneration in mice lacking the RelA component of NFκB. Nature 376: 167-170.
7. Huxford, T., et al. 1998. The crystal structure of the IκBα/NFκB complex reveals mechanisms of NFκB inactivation. Cell 95: 759-770.

CHROMOSOMAL LOCATION

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

SOURCE

p-NFκB p105 (4.Ser 932) is a mouse monoclonal antibody raised against a short amino acid sequence containing Ser 932 phosphorylated NFκB p105 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p-NFκB p105 (4.Ser 932) is available conjugated to agarose (sc-293141 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to HRP (sc-293141 HRP), 200 µg/ml, for WB, IHC(P) and ELISA.

APPLICATIONS

p-NFκB p105 (4.Ser 932) is recommended for detection of Ser 932 phosphorylated NFκB p105 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of NFκB p50: 50 kDa.

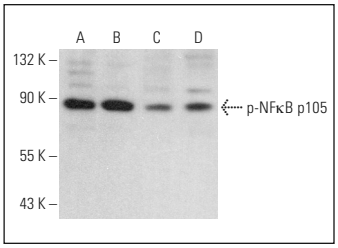
Molecular Weight of NFκB p105: 105 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

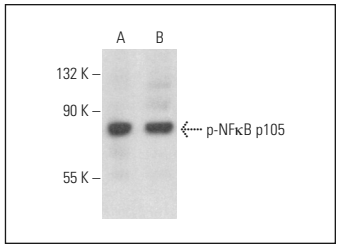
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Lambda Phosphatase: sc-200312A 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



p-NFκB p105 (4.Ser 932): sc-293141. Western blot analysis of NFκB p105 phosphorylation in CCRF-CEM (**A**), THP-1 (**B**), HeLa (**C**) and MCF7 (**D**) whole cell lysates.



p-NFκB p105 (4.Ser 932): sc-293141. Western blot analysis of p-NFκB p105 expression in CCRF-CEM (**A**) and Jurkat (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. John, S.P., et al. 2018. IFIT1 exerts opposing regulatory effects on the inflammatory and interferon gene programs in LPS-activated human macrophages. Cell Rep. 25: 95-106.

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. Not for resale.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.