

p-NFκB p50 (Ser 337): sc-101744

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 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 PDI, binds to p50 and regulates its activity. The NFκB transcription factor is a protein complex consisting of a DNA binding subunit and an associated protein. The DNA binding subunit, also referred to as Rel A, is functionally related to c-Rel p75 and Rel B p68. The p50 subunit is derived from the N-terminus of a precursor designated p105. A second protein designated p52 (previously referred to as p49) is derived from the p100 precursor and may act as an alternative to p50 in NFκB heterodimers. NFκB p50 Serine 337 is phosphorylated in response to PKA. The phosphorylation of NFκB p50 Serine 337 regulates the binding ability of NFκB p50 and has an impact on NFκB transcription.

CHROMOSOMAL LOCATION

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

SOURCE

p-NFκB p50 (Ser 337) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 337 phosphorylated NFκB p50 of human origin.

PRODUCT

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

APPLICATIONS

p-NFκB p50 (Ser 337) is recommended for detection of Ser 337 phosphorylated NFκB p50 of human origin and correspondingly phosphorylated Ser 335 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

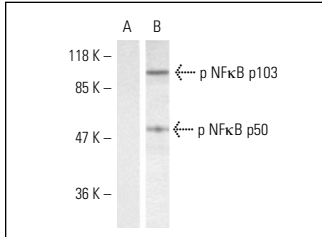
Suitable for use as control antibody for NFκB p50 siRNA (h): sc-29407, NFκB p50 siRNA (m): sc-29408, NFκB p50 shRNA Plasmid (h): sc-29407-SH, NFκB p50 shRNA Plasmid (m): sc-29408-SH, NFκB p50 shRNA (h) Lentiviral Particles: sc-29407-V and NFκB p50 shRNA (m) Lentiviral Particles: sc-29408-V.

Molecular Weight of p-NFκB p50: 50 kDa.

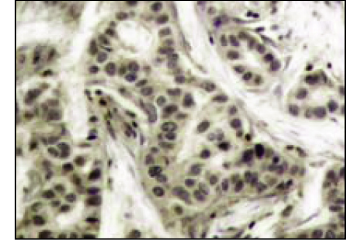
STORAGE

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

DATA



Western blot analysis of phosphorylated NFκB p50 expression in TNFα + Calyculin A-treated (B) HeLa whole cell lysate. Antibodies tested include p-NFκB p50 (Ser 337): sc-101744 (B) and p-NFκB p50 (Ser 337): sc-101744 preincubated with cognate phosphorylated peptide (A).



p-NFκB p50 (Ser 337): sc-101744. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing cytoplasmic and nuclear staining.

SELECT PRODUCT CITATIONS

1. Yadav, U.C., et al. 2010. Protective role of benfotiamine, a fat-soluble vitamin B1 analogue, in lipopolysaccharide-induced cytotoxic signals in murine macrophages. *Free Radic. Biol. Med.* 48: 1423-1434.
2. Zheng, Y., et al. 2012. Therapeutic potential of andrographolide for treating endometriosis. *Hum. Reprod.* 27: 1300-1313.
3. Zhang, Q.Q., et al. 2014. Andrographolide suppress tumor growth by inhibiting TLR4/NFκB signaling activation in Insulinoma. *Int. J. Biol. Sci.* 10: 404-414.

RESEARCH USE

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

PROTOCOLS

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


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Try **p-NFκB p50 (A-8): sc-271908**, our highly recommended monoclonal alternative to p-NFκB p50 (Ser 337).