SANTA CRUZ BIOTECHNOLOGY, INC.

NFκB p65 (A): sc-109

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 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, designated p105 and p100. The p105 precursor contains p50 at its amino-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: RELA (human) mapping to 11q13.1; Rela (mouse) mapping to 19 A.

SOURCE

NFκB p65 (A) is available as either rabbit (sc-109) or goat (sc-109-G) polyclonal affinity purified antibody raised against a peptide mapping within the N-terminus of NFκB p65 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.

Blocking peptide available for competition studies, sc-109 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-109 X, 200 µg/0.1 ml; and as agarose conjugate for immunoprecipitation, sc-109 AC, 500 µg/ 0.25 ml agarose in 1 ml.

APPLICATIONS

NFκB p65 (A) is recommended for detection of NFκB p65 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NFκB p65 (A) is also recommended for detection of NFκB p65 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for NFκB p65 siRNA (h): sc-29410, NFκB p65 siRNA (m): sc-29411, NFκB p65 shRNA Plasmid (h): sc-29410-SH, NFκB p65 shRNA Plasmid (m): sc-29411-SH, NFκB p65 shRNA (h) Lentiviral Particles: sc-29410-V, NFκB p65 shRNA (m) Lentiviral Particles: sc-29411-V.

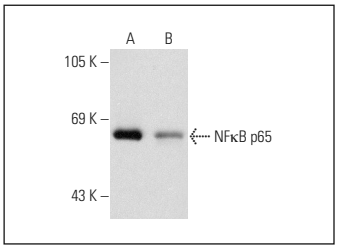
NFκB p65 (A) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of NFκB: 65 kDa.

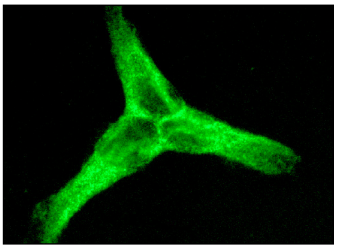
STORAGE

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

DATA



NFκB p65 (A): sc-109. Western blot analysis of NFκB p65 expression in HeLa (**A**) and MIA PaCa-2 (**B**) whole cell lysates.



NFκB p65 (A)-G: sc-109-G. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Perkins, N.D., et al. 1997. Regulation of NFκB by cyclin dependent kinases associated with the p300 coactivator. Science 275: 523-527.
2. Yao, L., et al. 2013. Toll-like receptor 4 mediates microglial activation and production of inflammatory mediators in neonatal rat brain following hypoxia: role of TLR4 in hypoxic microglia. J. Neuroinflammation 10: 23.
3. Plewka, A., et al. 2013. Immunohistochemical localization of selected pro-inflammatory factors in uterine myomas and myometrium in women of various ages. Folia Histochem. Cytobiol. 51: 73-83.
4. Zara, S., et al. 2013. NF-κB involvement in hyperoxia-induced myocardial damage in newborn rat hearts. Histochem. Cell Biol. 140: 575-583.
5. Zhang, N.N., et al. 2013. Homeostatic regulatory role of Pokemon in NF-κB signaling: stimulating both p65 and IκBα expression in human hepatocellular carcinoma cells. Mol. Cell. Biochem. 372: 57-64.
6. Carracedo, J., et al. 2013. Cellular senescence determines endothelial cell damage induced by uremia. Exp. Gerontol. 48: 766-773.
7. Poggi, M., et al. 2013. Palmitoylation of TNF α is involved in the regulation of TNF receptor 1 signalling. Biochem. Biophys. Acta 1833: 602-612.
8. Huang, K.J., et al. 2013. 5-Episinuleptolide acetate, a norcembranoidal diterpene from the formosan soft coral *Sinularia sp.,* induces leukemia cell apoptosis through Hsp90 inhibition. Molecules 18: 2924-2933.

RESEARCH USE

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