SANTA CRUZ BIOTECHNOLOGY, INC.

NFκB p65 (A-12): sc-514451

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 NκB (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 p105 and p100. The 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.

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 a. 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.

CHROMOSOMAL LOCATION

Genetic locus: RELA (human) mapping to 11q13.1; Rela (mouse) mapping to 19 A.

SOURCE

NFκB p65 (A-12) is a mouse monoclonal antibody raised against amino acids 1-286 of NFκB p65 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-514451 X, 200 µg/0.1 ml.

NFκB p65 (A-12) is available conjugated to agarose (sc-514451 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514451 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514451 PE), fluorescein (sc-514451 FITC), Alexa Fluor® 488 (sc-514451 AF488), Alexa Fluor® 546 (sc-514451 AF546), Alexa Fluor® 594 (sc-514451 AF594) or Alexa Fluor® 647 (sc-514451 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514451 AF680) or Alexa Fluor® 790 (sc-514451 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

NFκB p65 (A-12) is recommended for detection of NFκB p65 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

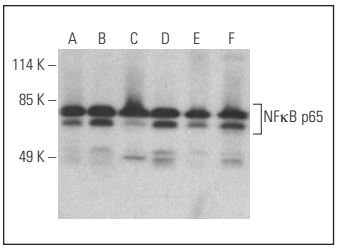
Suitable for use as control antibody for NFκB p65 siRNA (h): sc-29410, NFκB p65 siRNA (m): sc-29411, NFκB p65 siRNA (r): sc-61876, NFκB p65 shRNA Plasmid (h): sc-29410-SH, NFκB p65 shRNA Plasmid (m): sc-29411-SH, NFκB p65 shRNA Plasmid (r): sc-61876-SH, NFκB p65 shRNA (h) Lentiviral Particles: sc-29410-V, NFκB p65 shRNA (m) Lentiviral Particles: sc-29411-V and NFκB p65 shRNA (r) Lentiviral Particles: sc-61876-V.

NFκB p65 (A-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

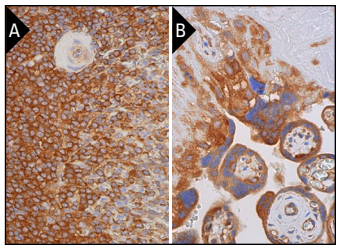
Molecular Weight of NFκB p65: 65 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HEL 92.1.7 cell lysate: sc-2270 or CCRF-CEM cell lysate: sc-2225.

DATA



NFκB p65 (A-12) HRP: sc-514451 HRP. Direct western blot analysis of NFκB p65 expression in CCRF-CEM (**A**), MCF7 (**B**), HEK293 (**C**), K-562 (**D**), SK-BR-3 (**E**) and HEL 92.1.7 (**F**) whole cell lysates.



NFκB p65 (A-12): sc-514451. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic staining of cells in white pulp and cells in red pulp (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells and decidual cells (**B**).

SELECT PRODUCT CITATIONS

1. Ateyya, H., et al. 2016. Effect of tiron on remote organ injury in rats with severe acute pancreatitis induced by L-arginine. Naunyn Schmiedebergs Arch. Pharmacol. 389: 873-885.
2. Wang, Y., et al. 2022. Repeated *trans*-arterial treatments of LDL-DHA nanoparticles induce multiple pathways of tumor cell death in hepatocellular carcinoma bearing rats. Front. Oncol. 12: 1052221.
3. Arkat, S., et al. 2023. Regulation of peroxiredoxin-3 gene expression under basal and hyperglycemic conditions: key roles for transcription factors Sp1, CREB and NFκB. Biochim. Biophys. Acta Mol. Basis Dis. 1869: 166691.

RESEARCH USE

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