SANTA CRUZ BIOTECHNOLOGY, INC.

NFκB p65 (G-8): sc-398442

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.

CHROMOSOMAL LOCATION

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

SOURCE

NFκB p65 (G-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 521-550 at the C-terminus of NFκB p65 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-398442 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-398442 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

NFκB p65 (G-8) 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).

NFκB p65 (G-8) is also recommended for detection of NFκB p65 in additional species, including canine and porcine.

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 and NFκB p65 shRNA (m) Lentiviral Particles: sc-29411-V.

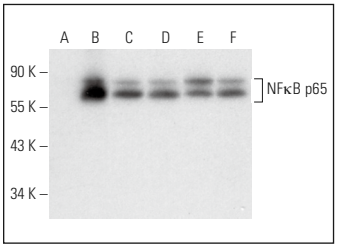
NFκB p65 (G-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of NFκB p65: 65 kDa.

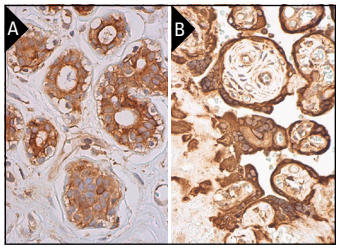
STORAGE

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

DATA



NFκB p65 (G-8): sc-398442. Western blot analysis of NFκB p65 expression in non-transfected 293T: sc-117752 (**A**), mouse NFκB p65 transfected 293T: sc-122028 (**B**), Jurkat (**C**), K-562 (**D**), HeLa (**E**) and SK-BR-3 (**F**) whole cell lysates.



NFκB p65 (G-8): sc-398442. Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing cytoplasmic staining of glandular cells and myoepithelial cells (**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. San Jose, G., et al. 2009. Insulin-induced NADPH oxidase activation promotes proliferation and matrix metalloproteinase activation in monocytes/macrophages. Free Radic. Biol. Med. 46: 1058-1067.
2. Tseng, H.C., et al. 2018. Lysophosphatidylcholine induces cyclooxygenase-2-dependent IL-6 expression in human cardiac fibroblasts. Cell. Mol. Life Sci. 75: 4599-4617.
3. Moreno, J.M., et al. 2019. Sex-dependent differences in the adverse renal changes induced by an early in life exposure to a high-fat diet. Am. J. Physiol. Renal Physiol. 316: F332-F340.
4. Shan, Z., et al. 2020. Tobacco mosaic viral nanoparticle inhibited osteoclastogenesis through inhibiting mTOR/AKT signaling. Int. J. Nanomedicine 15: 7143-7153.
5. Spinelli, G., et al. 2021. A new p65 isoform that bind the glucocorticoid hormone and is expressed in inflammation liver diseases and COVID-19. Sci. Rep. 11: 22913.
6. Li, D., et al. 2022. PFKFB4 promotes angiogenesis via IL-6/STAT5A/P-STAT5 signaling in breast cancer. J. Cancer 13: 212-224.
7. Chen, S., et al. 2023. LMP1 mediates tumorigenesis through persistent epigenetic modifications and PGC1β upregulation. Oncol. Rep. 49: 53.

RESEARCH USE

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

CONJUGATES

See **NFκB p65 (F-6): sc-8008** for NFκB p65 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.