SANTA CRUZ BIOTECHNOLOGY, INC.

NFκB p52 (447): sc-848

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The Power to Question

BACKGROUND

The NFκB transcription factor was originally identified as a protein complex consisting of a DNA binding subunit and an associated protein. The DNA binding subunit is functionally related to c-Rel p75 and Rel B p68. The p50 subunit was initially believed to be a functionally unique protein derived from the amino terminus of a precursor designated p105. A cDNA was isolated that encodes an alternative DNA binding subunit of NFκB. It is expressed in a variety of cell types and, like p105, undergoes cleavage to generate its NFκB subunit, in this case a protein designated p52 (previously referred to as p49). In contrast to p50 derived from p105, p52 acts in synergy with p65 to stimulate the HIV enhancer in transiently transfected Jurkat cells.

REFERENCE

1. Sen, R., et al. 1986. Multiple nuclear factors interact with the immunoglobulin enhancer sequences. Cell 46: 705-716.
2. Baeuerle, P.A., et al. 1989. A 65-κD subunit of active NFκB is required for inhibition of NFκB by IκB. Genes Dev. 3: 1689-1698.

CHROMOSOMAL LOCATION

Genetic locus: NFKB2 (human) mapping to 10q24.32; Nfkb2 (mouse) mapping to 19 C3.

SOURCE

NFκB p52 (447) is a rabbit polyclonal antibody raised against amino acids 1-447 of NFκB p52 of human origin.

PRODUCT

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

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-848 X, 200 µg/0.1 ml.

APPLICATIONS

NFκB p52 (447) is recommended for detection of NFκB p52 and p100 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)]; partially cross-reactive with NFκB p50.

NFκB p52 (447) is also recommended for detection of NFκB p52 and p100 in additional species, including equine, canine and bovine.

NFκB p52 (447) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of NFκB p52 isoforms: 52/100 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

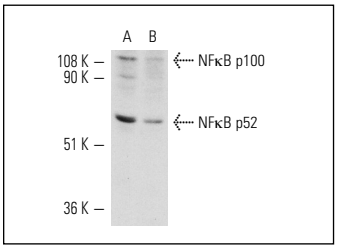
STORAGE

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.

DATA



NFκB p52 (447): sc-848. Western blot analysis of NFκB p100 and NFκB p52 expression in Jurkat (**A**) and K-562 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Miyazawa, K., et al. 1998. Constitutive transcription of the human interleukin-6 gene by rheumatoid synoviocytes: spontaneous activation of NFκB and CBF1. Am. J. Pathol. 152: 793-803.
2. Luhm, J., et al. 2006. β-(1→3)-D-glucan modulates DNA binding of nuclear factors κB, AT and IL-6 leading to an anti-inflammatory shift of the IL-1β/IL-1 receptor antagonist ratio. BMC Immunol. 7: 5.
3. Kenneth, N.S., et al. 2009. SWI/SNF regulates the cellular response to hypoxia. J. Biol. Chem. 284: 4123-4131.
4. Zaheer, R.S., et al. 2009. Selective transcriptional down-regulation of human rhinovirus-induced production of CXCL10 from airway epithelial cells via the MEK1 pathway. J. Immunol. 182: 4854-4864.
5. Bhattacharya, N., et al. 2010. High-throughput detection of nuclear factor-κB activity using a sensitive oligo-based chemiluminescent enzyme-linked immunosorbent assay. Int. J. Cancer 127: 404-411.
6. Kenneth, N.S., et al. 2010. IKK and NFκB-mediated regulation of Claspin impacts on ATR checkpoint function. EMBO J. 29: 2966-2978.
7. Culver, C., et al. 2010. Mechanism of hypoxia-induced NFκB. Mol. Cell. Biol. 30: 4901-4921.
8. Hollmann, A., et al. 2010. Vav-1 expression correlates with NFκB activation and CD40-mediated cell death in diffuse large B-cell lymphoma cell lines. Hematol. Oncol. 28: 142-150.
9. van Uden, P., et al. 2011. Evolutionary conserved regulation of HIF-1β by NFκB. PLoS Genet. 7: e1001285.