SANTA CRUZ BIOTECHNOLOGY, INC.

NFκB p52 (C-5): sc-7386

SANTA CRUZ BIOTECHNOLOGY

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 has been isolated that encodes an alternative DNA binding subunit of NFκB. It is synthesized as a protein that 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.

CHROMOSOMAL LOCATION

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

SOURCE

NFκB p52 (C-5) is a mouse monoclonal antibody raised against amino acids 1-447 of NFκB p52 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} 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-7386 X, 200 µg/0.1 ml.

NFκB p52 (C-5) is available conjugated to agarose (sc-7386 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-7386 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-7386 PE), fluorescein (sc-7386 FITC), Alexa Fluor® 488 (sc-7386 AF488), Alexa Fluor® 546 (sc-7386 AF546), Alexa Fluor® 594 (sc-7386 AF594) or Alexa Fluor® 647 (sc-7386 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-7386 AF680) or Alexa Fluor® 790 (sc-7386 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, NFκB p52 (C-5) is available conjugated to Alexa Fluor® 405 (sc-7386 AF405, 200 µg/ml), for IF, IHC(P) and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

NFκB p52 (C-5) 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), 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 flow cytometry (1 µg per 1 x 10^6 cells).

NFκB p52 (C-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

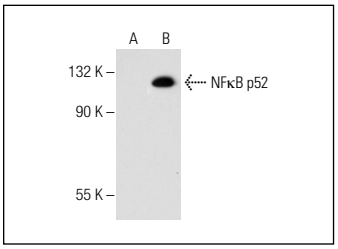
Molecular Weight of NFκB p52 isoforms: 52/100 kDa.

Positive Controls: NFκB p52 (m): 293T Lysate: sc-122026, HuT 78 whole cell lysate: sc-2208 or HeLa whole cell lysate: sc-2200.

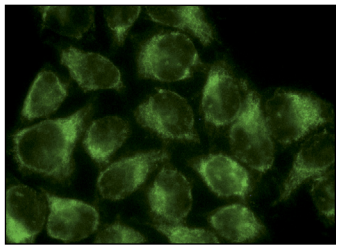
STORAGE

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

DATA



NFκB p52 (C-5): sc-7386. Western blot analysis of NFκB p52 expression in non-transfected: sc-117752 (**A**) and mouse NFκB p52 transfected: sc-122026 (**B**) 293T whole cell lysates.



NFκB p52 (C-5) AF488: sc-7386 AF488. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Pianetti, S., et al. 2001. Her-2/Neu overexpression induces NFκB via a PI3-kinase/Akt pathway involving calpain-mediated degradation of IκB-α that can be inhibited by the tumor suppressor PTEN. Oncogene 20: 1287-1299.
2. Watanabe, M., et al. 2013. Combined inhibition of NFκB and Bcl-2 triggers synergistic reduction of viability and induces apoptosis in melanoma cells. Oncol. Res. 21: 173-180.
3. Uno, M., et al. 2014. NFκB inducing kinase, a central signaling component of the non-canonical pathway of NFκB, contributes to ovarian cancer progression. PLoS ONE 9: e88347.
4. Ramachandiran, S., et al. 2015. Chromosome instability in diffuse large B cell lymphomas is suppressed by activation of the noncanonical NFκB pathway. Int. J. Cancer 136: 2341-2351.
5. Pilco-Ferreto, N. and Calaf, G.M. 2016. Influence of doxorubicin on apoptosis and oxidative stress in breast cancer cell lines. Int. J. Oncol. 49: 753-762.
6. Zhou, X., et al. 2017. Perfluorodecanoic acid stimulates NLRP3 inflammasome assembly in gastric cells. Sci. Rep. 7: 45468.
7. Hou, Y., et al. 2018. Non-canonical NFκB antagonizes STING sensor-mediated DNA sensing in radiotherapy. Immunity 49: 490-503.
8. Haines, R.R., et al. 2019. LSD1 Cooperates with noncanonical NFκB signaling to regulate marginal zone B cell development. J. Immunol. 203: 1867-1881.
9. Choi, S.Y., et al. 2020. YAP/TAZ direct commitment and maturation of lymph node fibroblastic reticular cells. Nat. Commun. 11: 519.
10. Huang, X., et al. 2021. The ubiquitin ligase Peli1 inhibits ICOS and thereby Tfh-mediated immunity. Cell. Mol. Immunol. 18: 969-978.

RESEARCH USE

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