

NFRκB (A-12): sc-514977

BACKGROUND

NFκB (nuclear factor κ-B) is a ubiquitously expressed transcriptional regulator that, when stimulated, can activate transcription of several genes encoding proteins involved in cell cycle control, cell adhesion and programmed cell death. NFRκB (nuclear factor related to κ-B-binding protein), also known as DNA-binding protein R κ-B, is a nuclear protein that binds to the DNA consensus sequence 5'-GGGGAATCTCC-3' of NFκB. Binding of NFRκB is thought to regulate IL-2Rα (interleukin-2 receptor α-chain) gene expression, a critical step in T-cell activation. NFRκB exists as three isoforms due to alternative splicing and is expressed primarily in the brain, liver, spleen, testis and thymus. NFRκB gene expression is amplified in acute myeloid leukemia, suggesting a possible role in carcinogenesis.

REFERENCES

1. Adams, B.S., et al. 1992. Localization of the gene encoding R κB (NFRκB), a tissue-specific DNA binding protein, to chromosome 11q24-q25. *Genomics* 14: 270-274.
2. Adams, B.S., et al. 1992. Cloning of RκB, a novel DNA-binding protein that recognizes the interleukin-2 receptor α chain κB site. *New Biol.* 3: 1063-1073.
3. Crossen, P.E., et al. 1999. Identification of amplified genes in a patient with acute myeloid leukemia and double minute chromosomes. *Cancer Genet. Cytogenet.* 113: 126-133.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 164013. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: NFRKB (human) mapping to 11q24.3; Nfrkb (mouse) mapping to 9 A4.

SOURCE

NFRκB (A-12) is a mouse monoclonal antibody raised against amino acids 388-657 mapping within an internal region of NFRκB of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ 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-514977 X, 200 µg/0.1 ml.

NFRκB (A-12) is available conjugated to agarose (sc-514977 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514977 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514977 PE), fluorescein (sc-514977 FITC), Alexa Fluor® 488 (sc-514977 AF488), Alexa Fluor® 546 (sc-514977 AF546), Alexa Fluor® 594 (sc-514977 AF594) or Alexa Fluor® 647 (sc-514977 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514977 AF680) or Alexa Fluor® 790 (sc-514977 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

NFRκB (A-12) is recommended for detection of NFRκB 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NFRκB siRNA (h): sc-96360, NFRκB siRNA (m): sc-149945, NFRκB shRNA Plasmid (h): sc-96360-SH, NFRκB shRNA Plasmid (m): sc-149945-SH, NFRκB shRNA (h) Lentiviral Particles: sc-96360-V and NFRκB shRNA (m) Lentiviral Particles: sc-149945-V.

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

Molecular Weight of NFRκB: 139 kDa.

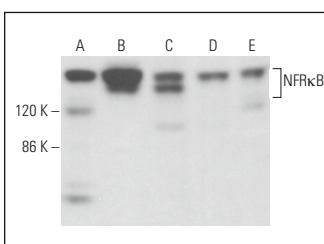
Positive Controls: MIA PaCa-2 cell lysate: sc-2285, BJAB whole cell lysate: sc-2207 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

RECOMMENDED SUPPORT REAGENTS

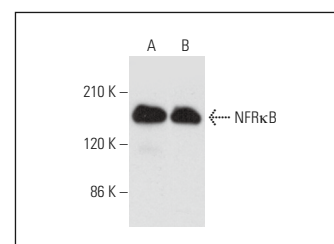
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



NFRκB (A-12): sc-514977. Western blot analysis of NFRκB expression in Jurkat (A), BJAB (B), NIH/3T3 (C), C2C12 (D) and TK-1 (E) whole cell lysates.



NFRκB (A-12): sc-514977. Western blot analysis of NFRκB expression in MIA PaCa-2 (A) and NTERA-2 cl.D1 (B) whole cell lysates.

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.