SANTA CRUZ BIOTECHNOLOGY, INC.

NFRκB (445C4a): sc-81106

BACKGROUND

NFκB (nuclear factor κB) 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 κB-binding protein), also known as DNA-binding protein RκB, 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 RκB (NFRKB), 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/
5. Tyybäkinoja, A., et al. 2006. Amplified, lost, and fused genes in 11q23-25 amplicon in acute myeloid leukemia, an array-CGH study. Genes Chromosomes Cancer 45: 257-264.
6. Natarajan, M., et al. 2006. Nuclear translocation and DNA-binding activity of NFKB (NFκB) after exposure of human monocytes to pulsed ultra-wideband electromagnetic fields (1 kV/cm) fails to transactivate κB-dependent gene expression. Radiat. Res. 165: 645-654.
7. Joshi, N., et al. 2006. Gene expression differences in normal esophageal mucosa associated with regression and progression of mild and moderate squamous dysplasia in a high-risk Chinese population. Cancer Res. 66: 6851-6860.

CHROMOSOMAL LOCATION

Genetic locus: NFRKB (human) mapping to 11q24.3.

SOURCE

NFRκB (445C4a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to a region near the C-terminus of NFRκB of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

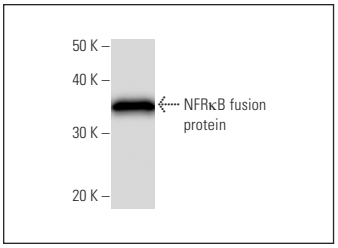
APPLICATIONS

NFRκB (445C4a) is recommended for detection of NFRκB of 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)].

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

Molecular Weight of NFRκB: 139 kDa.

DATA



NFRκB (445C4a): sc-81106. Western Blot analysis of human recombinant NFRκB fusion protein.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.