

NKAP (Y-14): sc-161948

BACKGROUND

NF κ B, a pleiotropic transcription factor, is present in almost all cell types and is involved in many biological processes including inflammation, immunity, differentiation, cell growth, tumorigenesis and apoptosis. NF κ B is a homo- or heterodimeric complex formed by the Rel-like domain-containing proteins RELA/p65, RELB, NF κ B1/p105, NF κ B1/p50, REL and NF κ B2/p52. This complex is controlled by various mechanisms of post-translational modification and subcellular compartmentalization as well as by interactions with other cofactors or corepressors. NKAP (NF κ B-activating protein) is a 415 amino acid nuclear protein that regulates TNF and IL1-induced NF κ B activation. As component of a DNA-binding complex, NKAP also functions as a transcriptional repressor that acts on NOTCH target genes. Loss of NKAP blocks the development of $\alpha\beta$ T-cells, suggesting that it is required for their maturation through repression of NOTCH genes.

REFERENCES

1. Bowie, A. and O'Neill, L.A. 1997. Studies into the mechanism of NF κ B activation by IL1, TNF and H2O2 in primary and transformed endothelial cells. *Biochem. Soc. Trans.* 25: 125S.
2. Chen, D., Li, X., Zhai, Z. and Shu, H.B. 2002. A novel zinc finger protein interacts with receptor-interacting protein (RIP) and inhibits tumor necrosis factor (TNF)- and IL1-induced NF κ B activation. *J. Biol. Chem.* 277: 15985-15991.
3. Chen, D., Li, Z., Yang, Q., Zhang, J., Zhai, Z. and Shu, H.B. 2003. Identification of a nuclear protein that promotes NF κ B activation. *Biochem. Biophys. Res. Commun.* 310: 720-724.
4. Dai, S.M., Nishioka, K. and Yudoh, K. 2004. Interleukin (IL) 18 stimulates osteoclast formation through synovial T cells in rheumatoid arthritis: comparison with IL1 β and tumour necrosis factor α . *Ann. Rheum. Dis.* 63: 1379-1386.
5. Borggreve, T. and Oswald, F. 2009. The Notch signaling pathway: transcriptional regulation at Notch target genes. *Cell. Mol. Life Sci.* 66: 1631-1646.
6. Pajerowski, A.G., Nguyen, C., Aghajanian, H., Shapiro, M.J. and Shapiro, V.S. 2009. NKAP is a transcriptional repressor of notch signaling and is required for T cell development. *Immunity* 30: 696-707.

CHROMOSOMAL LOCATION

Genetic locus: NKAP (human) mapping to Xq24; Nkap (mouse) mapping to X A3.3.

SOURCE

NKAP (Y-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NKAP of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161948 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NKAP (Y-14) is recommended for detection of NKAP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with NKAPL.

NKAP (Y-14) is also recommended for detection of NKAP in additional species, including equine and porcine.

Suitable for use as control antibody for NKAP siRNA (h): sc-90888, NKAP siRNA (m): sc-149988, NKAP shRNA Plasmid (h): sc-90888-SH, NKAP shRNA Plasmid (m): sc-149988-SH, NKAP shRNA (h) Lentiviral Particles: sc-90888-V and NKAP shRNA (m) Lentiviral Particles: sc-149988-V.

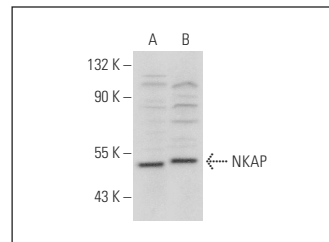
Molecular Weight of NKAP: 52 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HEK293 whole cell lysate: sc-45136 or HeLa whole cell lysate: sc-2200.

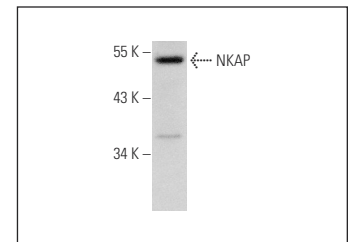
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NKAP (Y-14): sc-161948. Western blot analysis of NKAP expression in Hep G2 (A) and HEK293 (B) whole cell lysates.



NKAP (Y-14): sc-161948. Western blot analysis of NKAP expression in HeLa whole cell lysate.

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.