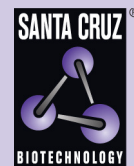


NIK (Q-20): sc-6365



The Power to Question

BACKGROUND

The NF κ B transcription factor can be activated by several cytokines including TNF and IL-1. The TNF receptor activates NF κ B through the TRAF2 adaptor protein, whereas the IL-1 receptor activates NF κ B in a pathway involving TRAF6. Both TRAF2 and TRAF6 have been shown to interact with a serine/threonine kinase designated NF κ B inducing kinase (NIK), which appears to participate in the NF κ B signaling cascades triggered by both TNF and IL-1. NIK associates with, and is a costimulator for, I κ B kinase α (IKK α). IKK α in turn, phosphorylates I κ B, resulting in I κ B degradation and NF κ B activation. NIK has sequence similarity to several kinases that participate in MAP kinase cascades. NIK appears to be uninvolved in the TRAF2-mediated activation of JNK by TNF.

REFERENCES

1. Rothe, M., et al. 1995. TRAF2-mediated activation of NF- κ B by TNF receptor 2 and CD40. *Science* 269: 1424-1427.
2. Hsu, H., et al. 1996. TRADD-TRAF2 and TRADD-FADD interactions define two distinct TNF receptor 1 signal transduction pathways. *Cell* 84: 299-308.
3. Cao, Z., et al. 1996. TRAF6 is a signal transducer for interleukin-1. *Nature* 383: 443-446.
4. Malinin, N., et al. 1997. MAP3K-related kinase involved in NF- κ B induction by TNF, CD95 and IL-1. *Nature* 385: 540-544.
5. Song, H.Y., et al. 1997. Tumor necrosis factor (TNF)-mediated kinase cascades: bifurcation of nuclear factor- κ B and c-jun N-terminal kinase (JNK/SAPK) pathways at TNF receptor-associated factor 2. *Proc. Nat. Acad. Sci. USA* 94: 9792-9796.
6. Regnier, C.H., et al. 1997. Identification and characterization of an I κ B kinase. *Cell* 90: 373-383.

CHROMOSOMAL LOCATION

Genetic locus: MAP3K14 (human) mapping to 17q21.31.

SOURCE

NIK (Q-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of NIK 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-6365 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

NIK (Q-20) is recommended for detection of NIK of 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).

NIK (Q-20) is also recommended for detection of NIK in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NIK siRNA (h): sc-36065, NIK shRNA Plasmid (h): sc-36065-SH and NIK shRNA (h) Lentiviral Particles: sc-36065-V.

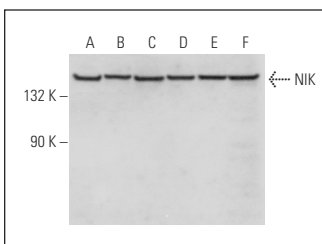
Molecular Weight of NIK: 130 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, NTERA-2 cl.D1 whole cell lysate: sc-364181 or Hep G2 cell lysate: sc-2227

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



NIK (Q-20): sc-6365. Western blot analysis of NIK expression in Jurkat (A), A549 (B), HEK293 (C), Hep G2 (D), THP-1 (E) and NTERA-2 cl.D1 (F) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Li, X.H., et al. 1999. The human T-cell leukemia virus type-1 Tax protein regulates the activity of the I κ B kinase complex. *J. Biol. Chem.* 274: 34417-34424.

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Try **NIK (A-12): sc-8417**, our highly recommended monoclonal alternative to NIK (Q-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **NIK (A-12): sc-8417**.