

NIK (N-19): sc-6363

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.
7. DiDonato, J.A., et al. 1997. A cytokine-responsive I κ B kinase that activates the transcription factor NF κ B. *Nature* 388: 548-554.

CHROMOSOMAL LOCATION

Genetic locus: MAP3K14 (human) mapping to 17q21.31; Map3k14 (mouse) mapping to 11 E1.

SOURCE

NIK (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-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-6363 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.

APPLICATIONS

NIK (N-19) is recommended for detection of NIK of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (N-19) is also recommended for detection of NIK in additional species, including equine.

Suitable for use as control antibody for NIK siRNA (h): sc-36065, NIK siRNA (m): sc-36066, NIK shRNA Plasmid (h): sc-36065-SH, NIK shRNA Plasmid (m): sc-36066-SH, NIK shRNA (h) Lentiviral Particles: sc-36065-V and NIK shRNA (m) Lentiviral Particles: sc-36066-V.

Molecular Weight of NIK: 130 kDa.

Positive Controls: A549 cell lysate: sc-2413.

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) 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.

RESEARCH USE

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

PROTOCOLS

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


 MONOS
 Satisfaction
 Guaranteed

Try **NIK (A-12): sc-8417**, our highly recommended monoclonal alternative to NIK (N-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **NIK (A-12): sc-8417**.