

Nek11 (N-13): sc-99566

BACKGROUND

NIMA (never in mitosis gene A) was originally discovered in *Aspergillus nidulans* as a protein that is necessary for entry into mitosis. Several NIMA-related mammalian proteins have since been identified. Nek11 (NIMA-related kinase 11) is a member of the NIMA subfamily of kinases that functions as a manganese- or magnesium-dependent serine/threonine protein kinase. Kinases of the NIMA subfamily are typically involved in genotoxic stress response and DNA replication. Expressed at low levels in trachea, lung, uterus, appendix and cerebellum, Nek11 localization is cell-cycle regulated; it is found in the nucleus of interphase cells and the polar microtubule of prometaphase and metaphase cells. Nek11 is present in the cell in increasing concentrations from S to G₂/M phase and is believed to play a role in the S phase checkpoint. Two isoforms exist for Nek11, due to alternative splicing events. The long and short isoforms are designated Nek11L and Nek11S, respectively.

CHROMOSOMAL LOCATION

Genetic locus: NEK11 (human) mapping to 3q22.1; Nek11 (mouse) mapping to 9 F1.

SOURCE

Nek11 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Nek11 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-99566 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Nek11 (N-13) is recommended for detection of Nek11 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

Nek11 (N-13) is also recommended for detection of Nek11 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Nek11 siRNA (h): sc-78268, Nek11 siRNA (m): sc-149904, Nek11 shRNA Plasmid (h): sc-78268-SH, Nek11 shRNA Plasmid (m): sc-149904-SH, Nek11 shRNA (h) Lentiviral Particles: sc-78268-V and Nek11 shRNA (m) Lentiviral Particles: sc-149904-V.

Molecular Weight of Nek11L: 75 kDa.

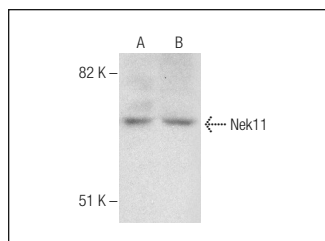
Molecular Weight of Nek11S: 59 kDa.

Positive Controls: A-431 nuclear extract: 2122, MCF7 nuclear extract: sc-2149 or HL-60 whole cell lysate: sc-2209.

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



Nek11 (N-13): sc-99566. Western blot analysis of Nek11 expression in A-431 (A) and MCF7 (B) nuclear extracts.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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



Try **Nek11 (36JK): sc-100429**, our highly recommended monoclonal alternative to Nek11 (N-13).