

# Nek6 (M-20): sc-50753

## BACKGROUND

NIMA was originally shown in *Aspergillus nidulans* to be necessary for entry into mitosis. NIMA-related mammalian proteins have since been identified as Nek1-4 and Nek6-9. High expression of Nek1 is seen in male and female germ cell lines of mice. Nek2 is the closest known mammalian relative to NIMA. Like NIMA, Nek2 expression peaks at the G<sub>2</sub> to M phase transition. Nek3, Nek6, Nek7 and Nek9 also regulate mitosis. Nek1 and Nek8 have been linked with polycystic kidney disease, and Nek4 expression is present in most primary carcinomas. Nek6 localizes to the cytoplasm and is expressed ubiquitously, with highest expression observed in the heart and skeletal muscle. It is activated during M phase and is required for chromosome segregation at the metaphase-anaphase transition and, consequently, mitotic progression.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Nek6 (mouse) mapping to 2 B.

## SOURCE

Nek6 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Nek6 of mouse 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-50753 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Nek6 (M-20) is recommended for detection of Nek6 of mouse and rat 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).

Nek6 (M-20) is also recommended for detection of Nek6 in additional species, including canine and porcine.

Suitable for use as control antibody for Nek6 siRNA (m): sc-61173, Nek6 shRNA Plasmid (m): sc-61173-SH and Nek6 shRNA (m) Lentiviral Particles: sc-61173-V.

Molecular Weight of Nek6: 36 kDa.

Positive Controls: Mouse brain extract: sc-2253.

## 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.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.