



## NIFK (F-14): sc-107817

### BACKGROUND

The structural proteins for the complex metalloenzyme nitrogenase include NIFK, NIFD and NIFH. These proteins are all necessary for archaeal and bacterial nitrogen fixation. The NIFK gene encodes the b subunit of the nitrogenase molybdenum-iron (MoFe) tetramer. NIFK localizes to the nucleolus where it interacts with the fork-head associated domain of the proliferation marker protein Ki-67 in a mitosis-specific and phosphorylation-dependent manner. NIFK is widely expressed in adult tissues, suggesting other functions in addition to its interaction with Ki-67, which is only expressed in proliferating cells.

### REFERENCES

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### 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

### CHROMOSOMAL LOCATION

Genetic locus: Mki67ip (mouse) mapping to 1 E2.3.

### SOURCE

NIFK (F-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NIFK 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-107817 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

NIFK (F-14) is recommended for detection of NIFK 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).

Suitable for use as control antibody for NIFK siRNA (m): sc-149974, NIFK shRNA Plasmid (m): sc-149974-SH and NIFK shRNA (m) Lentiviral Particles: sc-149974-V.

### 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.