

NIFK (H-63): sc-292761

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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CHROMOSOMAL LOCATION

Genetic locus: MKI67IP (human) mapping to 2q14.3; Mki67ip (mouse) mapping to 1 E2.3.

SOURCE

NIFK (H-63) is a rabbit polyclonal antibody raised against amino acids 66-128 mapping within an internal region of NIFK 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.

APPLICATIONS

NIFK (H-63) is recommended for detection of NIFK 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).

NIFK (H-63) is also recommended for detection of NIFK in additional species, including equine, canine and bovine.

Suitable for use as control antibody for NIFK siRNA (h): sc-72013, NIFK siRNA (m): sc-149974, NIFK shRNA Plasmid (h): sc-72013-SH, NIFK shRNA Plasmid (m): sc-149974-SH, NIFK shRNA (h) Lentiviral Particles: sc-72013-V and NIFK shRNA (m) Lentiviral Particles: sc-149974-V.

Molecular Weight of NIFK: 36 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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 or our catalog for detailed protocols and support products.