

NXT-1 (C-19): sc-16068

BACKGROUND

Protein transport across the nucleus is a selective, multistep process involving several cytoplasmic factors including Ran. Nuclear transport factor 2 (NTF2) regulates Ran function in a noncatalytic fashion and mediates Ran-GDP targeting to the nucleus. Nucleotide-dependent conformations of Ran alter the site of interaction that would otherwise permit the binding of NTF2 to Ran-GTP. NTF2-related export protein (NXT-1) binds Ran-GTP and promotes nuclear protein export as well as the export of U1 snRNA, tRNA and mRNA. The NXT-1 sequence is 26% identical to NTF2. Known also as p15, NXT-1 colocalizes to the nuclear pore complex and shuttles between the nucleus and the cytoplasm in mammalian cells. As a necessary cofactor in the TAP-dependent export of intron-containing RNA, NXT-1 binds TAP as well as NXF2 and NXF3. NXT-1 stimulates nuclear protein export through the Crm1-dependent pathway, where NXT-1 binds Crm1. During the final step of this pathway, NXT-1 is required for protein release.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NXT1 (human) mapping to 20p11.21; Nxt1 (mouse) mapping to 2 G3.

SOURCE

NXT-1 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NXT-1 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-16068 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NXT-1 (C-19) is recommended for detection of NXT-1 and, to a lesser extent, p15-2a and p15-2b 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).

NXT-1 (C-19) is also recommended for detection of NXT-1 and, to a lesser extent, p15-2a and p15-2b in additional species, including canine, bovine and porcine.

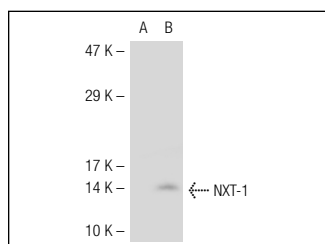
Suitable for use as control antibody for NXT-1 siRNA (h): sc-41271, NXT-1 siRNA (m): sc-41272, NXT-1 shRNA Plasmid (h): sc-41271-SH, NXT-1 shRNA Plasmid (m): sc-41272-SH, NXT-1 shRNA (h) Lentiviral Particles: sc-41271-V and NXT-1 shRNA (m) Lentiviral Particles: sc-41272-V.

Positive Controls: NXT-1 (m): 293T Lysate: sc-127252.

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



NXT-1 (C-19): sc-16068. Western blot analysis of NXT-1 expression in non-transfected: sc-117752 (A) and mouse NXT-1 transfected: sc-127252 (B) 293T whole cell lysates.

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.