

# NXF5 (V-12): sc-21018

## BACKGROUND

Nuclear export factor (NXF) proteins belong to an evolutionarily conserved family of proteins which are characterized by a leucine-rich-repeat domain (LRR) followed by a region known as the Nuclear Transport Factor 2 (NTF2)-like domain. The NXF family includes TAP1 (NXF1) and NXF2-5. TAP1 mediates the export of constitutive transport element (CTE)-containing simian type D retroviral RNAs through direct binding to the CTE. NXF2 binds RNA and localizes to the nuclear envelope, where it exhibits RNA export activity. NXF3 does not bind RNA nor localize to the nuclear rim, and NXF3 does not exhibit RNA export activity. NXF5 binds RNA and localizes in the form of granules in the cell body and neurites of mature hippocampal neurons. TAP1, NXF2 and NXF5 form heterodimers with RNA nuclear export-associated protein p15 (NXT). The human NXF gene cluster maps to Xcen-NXF5-NXF2-NXF4-NXF3-Xqter.

## REFERENCES

1. Herold, A., et al. 2000. TAP (NXF1) belongs to a multigene family of putative RNA export factors with a conserved modular architecture. *Mol. Cell Biol.* 20: 8996-9008.
2. Tan, W., et al. 2000. The mRNA export in *Caenorhabditis elegans* is mediated by Ce-NXF-1, an ortholog of human TAP/NXF and *Saccharomyces cerevisiae* Mex67p. *RNA* 6: 1762-1772.
3. Braun, I.C., et al. 2001. Over-expression of TAP/p15 heterodimers bypasses nuclear retention and stimulates nuclear mRNA export. *J. Biol. Chem.* 276: 20536-20543.
4. Nappi, F., et al. 2001. Identification of a novel posttranscriptional regulatory element by using a REV- and RRE-mutated human immunodeficiency virus type 1 DNA proviral clone as a molecular trap. *J. Virol.* 75: 4558-4569.
5. Jun, L., et al. 2001. NXF5, a novel member of the nuclear RNA export factor family, is lost in a male patient with a syndromic form of mental retardation. *Curr. Biol.* 11: 1381-1391.

## CHROMOSOMAL LOCATION

Genetic locus: NXF5 (human) mapping to Xq22.1.

## SOURCE

NXF5 (V-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NXF5 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-21018 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

NXF5 (V-12) is recommended for detection of NXF5 isoforms a, b, d and e of 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).

Suitable for use as control antibody for NXF5 siRNA (h): sc-38138, NXF5 shRNA Plasmid (h): sc-38138-SH and NXF5 shRNA (h) Lentiviral Particles: sc-38138-V.

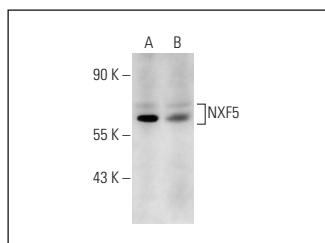
Molecular Weight of NXF5 isoforms: 46/42/35/20 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

## 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



NXF5 (V-12): sc-21018. Western blot analysis of NXF5 expression in HeLa (A) and K-562 (B) whole cell lysates.

## 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.