

translin (N-20): sc-17136

BACKGROUND

Translin, also designated testis brain-RNA-binding protein (TB-RBP), is a single-stranded DNA- and RNA-binding protein that binds to the 3' UTR regions (Y and H elements) of stored mRNAs, which suppresses their *in vitro* translation. The human translin gene maps to chromosome 2q21.1 and encodes a protein that has been highly conserved throughout evolution. Translin forms a ring-shaped structure, which is responsible for DNA binding, and also contains a leucine zipper motif, which is thought to enable translin to form dimers. Translin exports specific mRNAs out of the nucleus, supported by its localization in both the nuclei and cytoplasm of neurons, and regulates their translation. Association with Trax (translin-associated factor X), inhibits the binding of translin to RNA, but enhances its binding to single stranded DNA sequences. Breakpoints in the TLS/FUS and CHOP loci contain consensus recognition motifs of translin, which associates with chromosomal translocations in liposarcomas (9,10).

REFERENCES

1. Aoki, K., et al. 1997. Genomic structure and chromosomal localization of the gene encoding translin, a recombination hotspot binding protein. *Genomics* 43: 237-241.
2. Gu, W., et al. 1998. The RNA- and DNA-binding protein TB-RBP is spatially and developmentally regulated during spermatogenesis. *Mol. Reprod. Dev.* 49: 219-228.
3. Kobayashi, S., et al. 1998. The dendritic translocation of translin protein in the form of BC1 RNA protein particles in developing rat hippocampal neurons in primary culture. *Biochem. Biophys. Res. Commun.* 253: 448-453.
4. Wu, X.Q., et al. 1998. Dimerization of the testis brain RNA-binding protein (translin) is mediated through its C-terminus and is required for DNA- and RNA-binding. *Nucleic Acids Res.* 26: 1675-1680.

CHROMOSOMAL LOCATION

Genetic locus: TSN (human) mapping to 2q21.1; Tsn (mouse) mapping to 1 E2.3.

SOURCE

translin (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of translin 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-17136 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

translin (N-20) is recommended for detection of translin 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).

translin (N-20) is also recommended for detection of translin in additional species, including equine, canine, bovine, porcine and avian.

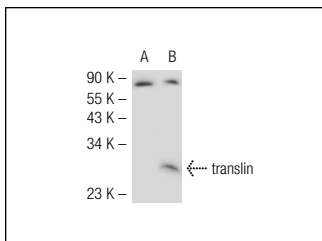
Suitable for use as control antibody for translin siRNA (h): sc-38600, translin siRNA (m): sc-38601, translin shRNA Plasmid (h): sc-38600-SH, translin shRNA Plasmid (m): sc-38601-SH, translin shRNA (h) Lentiviral Particles: sc-38600-V and translin shRNA (m) Lentiviral Particles: sc-38601-V.

Molecular Weight of translin: 26 kDa.

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



translin (N-20): sc-17136. Western blot analysis of translin expression in non-transfected: sc-117752 (A) and mouse translin transfected: sc-124256 (B) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
Satisfaction
Guaranteed

Try **translin (C-2): sc-390472**, our highly recommended monoclonal alternative to translin (N-20).