

TRAX (56): sc-136108

BACKGROUND

TRAX (translin-associated factor X), also known as TSNAX, is a nuclear protein that interacts with translin, a DNA-binding protein involved in breakpoint junctions of chromosomal translocations. Expressed highly in the brain and testis, TRAX contains an N-terminal bipartite nuclear localization signal (NLS) and a leucine zipper domain. The NLS may be involved in the nuclear transport of translin, while the leucine zipper domain is essential for interactions between TRAX and other proteins. When TRAX is complexed with translin, the two proteins can interact with the protein kinase activator C1D, allowing the complex to participate in DNA double-stranded break repair and dendritic RNA processing. TRAX also functions as a transcriptional regulator of GAP-43, a growth-associated protein found in growth cones, suggesting a possible role in axonal regeneration and cell proliferation.

REFERENCES

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3. Cho, Y.S., et al. 2004. The relative levels of translin-associated factor X (TRAX) and testis brain RNA-binding protein determine their nucleocytoplasmic distribution in male germ cells. *J. Biol. Chem.* 279: 31514-31523.
4. Bray, J.D., et al. 2004. KIF2A β : a kinesin family member enriched in mouse male germ cells, interacts with translin associated factor-X (TRAX). *Mol. Reprod. Dev.* 69: 387-396.
5. Gupta, G.D., et al. 2005. Co-expressed recombinant human translin-TRAX complex binds DNA. *FEBS Lett.* 579: 3141-3146.
6. Laufman, O., et al. 2005. Cloning and characterization of the *Schizosaccharomyces pombe* homologs of the human protein translin and the translin-associated protein TRAX. *Nucleic Acids Res.* 33: 4128-4139.
7. Sun, C.N., et al. 2006. Rescue of p53 blockage by the A(2A) adenosine receptor via a novel interacting protein, translin-associated protein X. *Mol. Pharmacol.* 70: 454-466.

CHROMOSOMAL LOCATION

Genetic locus: TSNAX (human) mapping to 1q42.2; Tsnax (mouse) mapping to 8 E2.

SOURCE

TRAX (56) is a mouse monoclonal antibody raised against amino acids 1-207 of TRAX of human origin.

PRODUCT

Each vial contains 50 μ g IgG₁ in 500 μ l of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol and 0.04% stabilizer protein.

RESEARCH USE

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

APPLICATIONS

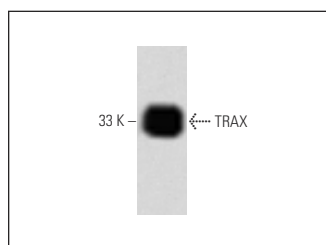
TRAX (56) is recommended for detection of TRAX of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for TRAX siRNA (h): sc-76726, TRAX siRNA (m): sc-76727, TRAX shRNA Plasmid (h): sc-76726-SH, TRAX shRNA Plasmid (m): sc-76727-SH, TRAX shRNA (h) Lentiviral Particles: sc-76726-V and TRAX shRNA (m) Lentiviral Particles: sc-76727-V.

Molecular Weight of TRAX: 33 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

DATA



TRAX (56): sc-136108. Western blot analysis of TRAX expression in Jurkat whole cell lysate.

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 for detailed protocols and support products.