

Exportin T (3236C1a): sc-81269

BACKGROUND

Exportin T, a nuclear export receptor for tRNA, selectively exports mature tRNA with correctly processed 5' and 3' ends. The TpsiC loop present in mature tRNA is also critical for the selection process. Exportin T binds tRNA in a RanGTP-dependent manner to form a nuclear export complex. Exportin T shuttles bidirectionally through nuclear pore complexes. The steady-state distribution of Exportin T is dependent on its RanGTP interaction. The RanGTP-dependent interaction between Exportin T and various nucleoporins increase the efficiency of Exportin T by holding empty and tRNA-bound Exportin T near nuclear pore complexes. The gene encoding human Exportin T maps to chromosome 12.

REFERENCES

1. Arts, G.J., Fornerod, M. and Mattaj, I.W. 1998. Identification of a nuclear export receptor for tRNA. *Curr. Biol.* 8: 305-314.
2. Kutay, U., Lipowsky, G., Izaurralde, E., Bischoff, F.R., Schwarzmaier, P., Hartmann, E. and Gorlich, D. 1998. Identification of a tRNA-specific nuclear export receptor. *Mol. Cell.* 1: 359-369.
3. Arts, G.J., Kuersten, S., Romby, P., Ehresmann, B. and Mattaj, I.W. 1998. The role of Exportin T in selective nuclear export of mature tRNAs. *EMBO J.* 17: 7430-7441.
4. Lipowsky, G., Bischoff, F.R., Izaurralde, E., Kutay, U., Schafer, S., Gross, H.J., Beier, H. and Gorlich, D. 1999. Coordination of tRNA nuclear export with processing of tRNA. *RNA* 5: 539-549.
5. Kuersten, S., Arts, G.J., Walther, T.C., Englmeier, L. and Mattaj, I.W. 2002. Steady-state nuclear localization of Exportin T involves RanGTP binding and two distinct nuclear pore complex interaction domains. *Mol. Cell. Biol.* 22: 5708-5720.
6. LocusLink Report (LocusID: 11260) <http://www.ncbi.nlm.nih.gov/LocusLink>

CHROMOSOMAL LOCATION

Genetic locus: XPOT (human) mapping to 12q14.2.

SOURCE

Exportin T (3236C1a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to the N-terminal region of Exportin T of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% BSA.

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.

APPLICATIONS

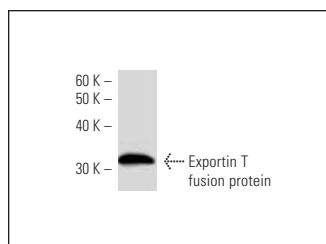
Exportin T (3236C1a) is recommended for detection of Exportin T of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1–2 µg per 100–500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Exportin T siRNA (h): sc-41275.

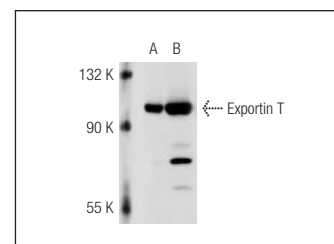
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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).

DATA



Exportin T (3236C1a): sc-81269 Western Blot analysis of human recombinant Exportin T fusion protein.



Exportin T (3236C1a): sc-81269. Western blot analysis of Exportin T expression in 293T (A) and K-562 (B) whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.