SANTA CRUZ BIOTECHNOLOGY, INC.

Exportin T (C-20): sc-25112

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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; Xpot (mouse) mapping to 10 D2.

SOURCE

Exportin T (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Exportin T 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-25112 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

Exportin T (C-20) is recommended for detection of Exportin T of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Exportin T (C-20) is also recommended for detection of Exportin T in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Exportin T siRNA (h): sc-41275, Exportin T siRNA (m): sc-41276, Exportin T shRNA Plasmid (h): sc-41275-SH, Exportin T shRNA Plasmid (m): sc-41276-SH, Exportin T shRNA (h) Lentiviral Particles: sc-41275-V and Exportin T shRNA (m) Lentiviral Particles: sc-41276-V.

Molecular Weight of Exportin T: 110 kDa.

Positive Controls: 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) 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.

RESEARCH USE

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

PROTOCOLS

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