

Exportin 4 (A-16): sc-13422

BACKGROUND

Exportins preferentially bind their substrates at high RanGTP concentrations in the nucleus and then exit the nucleus as trimeric cargo-Exportin-RanGTP complexes. The disassembly of the Exportin-RanGTP complexes involves RanGAP and either RanBP1 or RanBP2, and frees the Exportins for additional nuclear exports. Exportin 1 (soluble cellular export receptor) is a receptor for leucine-rich export sequences and mediates nucleocytoplasmic translocation of Rev-HIV RNA complexes through the nuclear pore. Exportin T binds to functional tRNA and mediates tRNA export from the nucleus. Exportin 4 mediates nuclear export of the eukaryotic translation initiation factor 5A (eIF-5A) by means of a hypusine modification unique to eIF-5A. While a distant member of the importin β superfamily, Exportin 4 shares an N-terminal RanGTP-binding motif with Exportin 1 and Exportin T.

REFERENCES

- Görllich, D., et al. 1997. A novel class of RanGTP binding proteins. *J. Cell Biol.* 138: 65-80.
- Kutay, U., et al. 1997. Export of Importin α from the nucleus is mediated by a specific nuclear transport factor. *Cell* 90: 1061-1071.
- Boyle, S.M., et al. 1999. Association with the cellular export receptor CRM1 mediates function and intracellular localization of Epstein-Barr virus SM protein, a regulator of gene expression. *J. Virol.* 73: 6872-6881.
- Lipowsky, G., et al. 1999. Coordination of tRNA nuclear export with processing of tRNA. *RNA* 5: 539-549.
- Collier, S., et al. 2000 The *Drosophila* embargoed gene is required for larval progression and encodes the functional homolog of schizosaccharomyces Crm1. *Genetics* 155: 1799-1807.
- Lipowsky, G., et al. 2000. Exportin 4: a mediator of a novel nuclear export pathway in higher eukaryotes. *EMBO J.* 19: 4362-4371.

CHROMOSOMAL LOCATION

Genetic locus: XPO4 (human) mapping to 13q12.11; Xpo4 (mouse) mapping to 14 C3.

SOURCE

Exportin 4 (A-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Exportin 4 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-13422 P, (100 μ g 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 4 (A-16) is recommended for detection of Exportin 4 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)], 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 4 (A-16) is also recommended for detection of Exportin 4 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Exportin 4 siRNA (h): sc-41273, Exportin 4 siRNA (m): sc-41274, Exportin 4 shRNA Plasmid (h): sc-41273-SH, Exportin 4 shRNA Plasmid (m): sc-41274-SH, Exportin 4 shRNA (h) Lentiviral Particles: sc-41273-V and Exportin 4 shRNA (m) Lentiviral Particles: sc-41274-V.

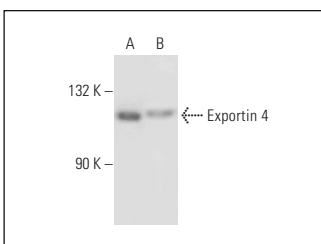
Molecular Weight of Exportin 4: 130 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Ramos cell lysate: sc-2216.

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



Exportin 4 (A-16): sc-13422. Western blot analysis of Exportin 4 expression in HeLa (A) and Ramos (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 or our catalog for detailed protocols and support products.