SANTA CRUZ BIOTECHNOLOGY, INC.

Exportin 5 (C-2): sc-514503

BACKGROUND

The karyopherin-related nuclear transport factor Exportin 5, also known as Exp5, preferentially recognizes and transports RNAs containing minihelix motifs, structural cis-acting export elements that comprise a double-stranded stem (14 nucleotides) with a base-paired 5' end and a 3-8-nucleotide protruding 3' end. Exportin 5 also mediates protein transport between the nuclear and cytoplasmic compartment. Exportin 5 belongs to a large family of karyopherins and stimulates nuclear export of dsRNA binding proteins eEF1A and tRNA.

REFERENCES

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2. Brownawell, A.M. and Macara, I.G. 2002. Exportin 5, a novel karyopherin, mediates nuclear export of double-stranded RNA binding proteins. J. Cell Biol. 156: 53-64.
3. Chen, T., Brownawell, A.M. and Macara, I.G. 2004. Nucleocytoplasmic shuttling of JAZ, a new cargo protein for Exportin 5. Mol. Cell. Biol. 24: 6608-6619.
4. Gwizdek, C., Ossareh-Nazari, B., Brownawell, A.M., Evers, S., Macara, I.G. and Dargemont, C. 2004. Minihelix-containing RNAs mediate Exportin 5-dependent nuclear export of the double-stranded RNA-binding protein ILF3. J. Biol. Chem. 279: 884-891.
5. Macchi, P., Brownawell, A.M., Grunewald, B., DesGroseillers, L., Macara, I.G. and Kiebler, M.A. 2004. The brain-specific double-stranded RNA-binding protein Staufen2: nucleolar accumulation and isoform-specific Exportin 5-dependent export. J. Biol. Chem. 279: 31440-31444.

CHROMOSOMAL LOCATION

Genetic locus: XPO5 (human) mapping to 6p21.1.

SOURCE

Exportin 5 (C-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 44-62 near the N-terminus of Exportin 5 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514503 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Exportin 5 (C-2) is recommended for detection of Exportin 5 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Exportin 5 siRNA (h): sc-45569, Exportin 5 shRNA Plasmid (h): sc-45569-SH and Exportin 5 shRNA (h) Lentiviral Particles: sc-45569-V.

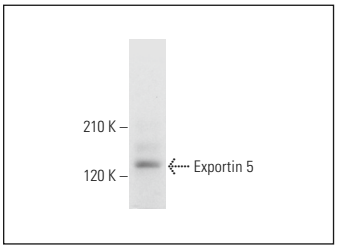
Molecular Weight of Exportin 5: 136 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Exportin 5 (C-2): sc-514503. Western blot analysis of Exportin 5 expression in K-562 whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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