

# Exportin 5 (A-4): sc-166789

## 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

- Bohnsack, M.T., Regener, K., Schwappach, B., Saffrich, R., Paraskeva, E., Hartmann, E. and Görlich, D. 2002. Exp5 exports eEF1A via tRNA from nuclei and synergizes with other transport pathways to confine translation to the cytoplasm. *EMBO J.* 21: 6205-6215.
- 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.
- 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.
- 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.
- 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 Stauf2: 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; Xpo5 (mouse) mapping to 17 C.

## SOURCE

Exportin 5 (A-4) is a mouse monoclonal antibody raised against amino acids 905-1204 mapping at the C-terminus of Exportin 5 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## 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](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

Exportin 5 (A-4) is recommended for detection of Exportin 5 of mouse, rat and 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 siRNA (m): sc-45570, Exportin 5 shRNA Plasmid (h): sc-45569-SH, Exportin 5 shRNA Plasmid (m): sc-45570-SH, Exportin 5 shRNA (h) Lentiviral Particles: sc-45569-V and Exportin 5 shRNA (m) Lentiviral Particles: sc-45570-V.

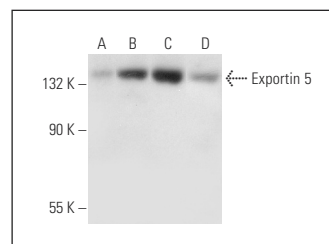
Molecular Weight of Exportin 5: 136 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

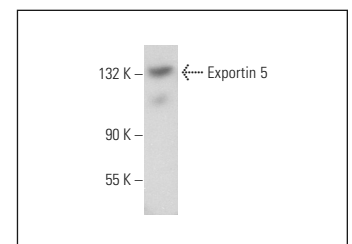
## RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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 (A-4): sc-166789. Western blot analysis of Exportin 5 expression in Jurkat (A), HeLa (B), K-562 (C) and Ramos (D) whole cell lysates.



Exportin 5 (A-4): sc-166789. Western blot analysis of Exportin 5 expression in IMR-32 whole cell lysate.

## SELECT PRODUCT CITATIONS

- Chatzifrangkeskou, M., Pefani, D.E., Eyres, M., Vendrell, I., Fischer, R., Pankova, D. and O'Neill, E. 2019. RASSF1A is required for the maintenance of nuclear actin levels. *EMBO J.* 38: e101168.

## RESEARCH USE

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