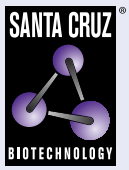
SANTA CRUZ BIOTECHNOLOGY, INC.

Exportin 7 (A-11): sc-390025



The Power to Question

BACKGROUND

Exportin 7 is also known as RanBP16 (Ran-binding protein 16) or XPO7 and is a 1,087 amino acid protein. Exportin 7 is primarily expressed in testis, thyroid and bone marrow, but is also expressed in lung, liver and small intestine. Exportin 7 translocates proteins and large RNAs through the nuclear pore complex (NPC) and is localized to the cytoplasm and nucleus. Exportin 7 has two types of receptors, designated importins and exportins, both of which recognize proteins that contain nuclear localization signals (NLSs) and are targeted for transport either in or out of the nucleus via the NPC. Additionally, the nucleocytoplasmic RanGTP gradient regulates Exportin 7 distribution, and enables Exportin 7 to bind and release proteins and large RNAs before and after their transportation. Exportin 7 is thought to play a role in erythroid differentiation and may also interact with cancer-associated proteins, suggesting a role for Exportin 7 in tumorigenesis.

REFERENCES

1. Koch, P., et al. 2000. Identification of a novel putative Ran-binding protein and its close homologue. Biochem. Biophys. Res. Commun. 278: 241-249.
2. Kutay, U., et al. 2000. Identification of two novel RanGTP-binding proteins belonging to the importin β superfamily. J. Biol. Chem. 275: 40163-40168.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606140. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Mingot, J.M., et al. 2004. Exportin 7 defines a novel general nuclear export pathway. EMBO J. 23: 3227-3236.
5. Cooke, S.L., et al. 2008. High-resolution array CGH clarifies events occurring on 8p in carcinogenesis. BMC Cancer 8: 288.

CHROMOSOMAL LOCATION

Genetic locus: XPO7 (human) mapping to 8p21.3; Xpo7 (mouse) mapping to 14 D2.

SOURCE

Exportin 7 (A-11) is a mouse monoclonal antibody raised against amino acids 520-594 mapping within an internal region of Exportin 7 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Exportin 7 (A-11) is available conjugated to agarose (sc-390025 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390025 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390025 PE), fluorescein (sc-390025 FITC), Alexa Fluor® 488 (sc-390025 AF488), Alexa Fluor® 546 (sc-390025 AF546), Alexa Fluor® 594 (sc-390025 AF594) or Alexa Fluor® 647 (sc-390025 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390025 AF680) or Alexa Fluor® 790 (sc-390025 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Exportin 7 (A-11) is recommended for detection of Exportin 7 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

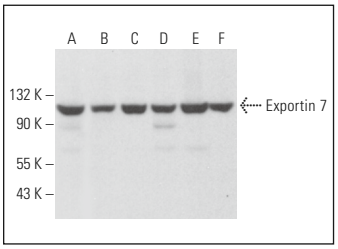
Exportin 7 (A-11) is also recommended for detection of Exportin 7 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Exportin 7 siRNA (h): sc-77831, Exportin 7 siRNA (m): sc-144983, Exportin 7 shRNA Plasmid (h): sc-77831-SH, Exportin 7 shRNA Plasmid (m): sc-144983-SH, Exportin 7 shRNA (h) Lentiviral Particles: sc-77831-V and Exportin 7 shRNA (m) Lentiviral Particles: sc-144983-V.

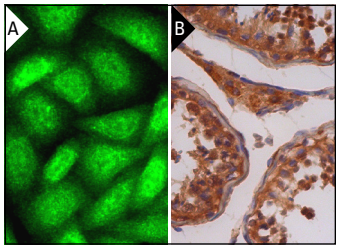
Molecular Weight of Exportin 7: 124 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243, TF-1 cell lysate: sc-2412 or HEL 92.1.7 cell lysate: sc-2270.

DATA



Exportin 7 (A-11): sc-390025. Western blot analysis of Exportin 7 expression in HEL 92.1.7 (**A**), NTERA-2 cl.D1 (**B**), TF-1 (**C**), K-562 (**D**), MOLT-4 (**E**) and 3T3-L1 (**F**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



Exportin 7 (A-11): sc-390025. Immunofluorescence staining of formalin-fixed SW480 cells showing nuclear and cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic and nuclear staining of cells in seminiferous ducts and Leydig cells (**B**).

SELECT PRODUCT CITATIONS

1. Chatzifrangkeskou, M., et al. 2019. RASSF1A is required for the maintenance of nuclear Actin levels. EMBO J. 38: e101168.
2. Cantú, I., et al. 2019. The mouse KLF1 Nan variant impairs nuclear condensation and erythroid maturation. PLoS ONE 14: e0208659.
3. Dang, F., et al. 2021. Inhibition of CK1ε potentiates the therapeutic efficacy of CDK4/6 inhibitor in breast cancer. Nat. Commun. 12: 5386.

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.