

Importin-11 (N-22): sc-130662

BACKGROUND

The Importin complex consists of Importin- α and Importin- β proteins which assist in the transport of arginine- or serine-rich (SR) peptides across the nucleus. Importin-11, also known as IPO11 or RanBP11, is a 975 amino acid protein that contains one importin N-terminal domain and 15 HEAT repeats and belongs to the Importin- β family. Localized to both the nucleus and the cytoplasm, Importin-11 interacts with UBE2E3 and plays a role in nuclear protein import, specifically functioning as a nuclear transport receptor that mediates the docking of the importin complex to the nuclear pore complex (NPC). The gene encoding Importin-11 maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

1. Plafker, S.M. and Macara, I.G. 2000. Importin-11, a nuclear import receptor for the ubiquitin-conjugating enzyme, UbcM2. *EMBO J.* 19: 5502-5513.
2. Plafker, S.M. and Macara, I.G. 2002. Ribosomal protein L12 uses a distinct nuclear import pathway mediated by Importin-11. *Mol. Cell. Biol.* 22: 1266-1275.
3. Wang, W., Yang, Y., Li, L. and Shi, Y. 2003. Synleurin, a novel leucine-rich repeat protein that increases the intensity of pleiotropic cytokine responses. *Biochem. Biophys. Res. Commun.* 305: 981-988.
4. Plafker, S.M., Plafker, K.S., Weissman, A.M. and Macara, I.G. 2004. Ubiquitin charging of human class III ubiquitin-conjugating enzymes triggers their nuclear import. *J. Cell Biol.* 167: 649-659.
5. Zhang, X.D. and Matunis, M.J. 2005. Ub in charge: regulating E2 enzyme nuclear import. *Nat. Cell Biol.* 7: 12-14.
6. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610889. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: IPO11 (human) mapping to 5q12.1; Ipo11 (mouse) mapping to 13 D2.1.

SOURCE

Importin-11 (N-22) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of Importin-11 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

Importin-11 (N-22) is recommended for detection of Importin-11 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Importin-11 siRNA (h): sc-91819, Importin-11 siRNA (m): sc-146232, Importin-11 shRNA Plasmid (h): sc-91819-SH, Importin-11 shRNA Plasmid (m): sc-146232-SH, Importin-11 shRNA (h) Lentiviral Particles: sc-91819-V and Importin-11 shRNA (m) Lentiviral Particles: sc-146232-V.

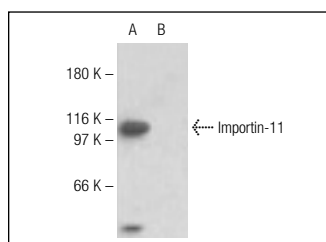
Molecular Weight of Importin-11: 113 kDa.

Positive Controls: Importin-11 (h): 293T Lysate: sc-114980.

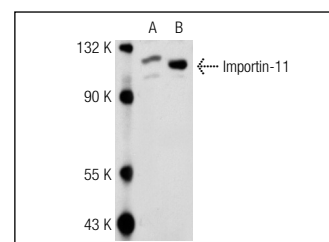
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

DATA



Importin-11 (N-22): sc-130662. Western blot analysis of Importin-11 expression in HeLa whole cell lysate in the absence (A) and the presence (B) of immunizing peptide.



Importin-11 (N-22): sc-130662. Western blot analysis of Importin-11 expression in non-transfected: sc-117752 (A) and human Importin-11 transfected: sc-114980 (B) 293T whole cell lysates.

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 or our catalog for detailed protocols and support products.