



Importin-9 (N-14): sc-103569

BACKGROUND

The importin complex consists of Importin- α and Importin- β proteins which assist in transport of Arginine- or serine-rich (SR) proteins across the nucleus. Importin-9, also known as Imp9 or IPO9, is a 1,041 amino acid protein that contains one importin N-terminal domain and belongs to the Importin- β family. Localized to both the nucleus and the cytoplasm, Importin-9 functions as a nuclear transport receptor that mediates the docking of the Importin complex to the nuclear pore complex (NPC). Importin-9 mediates nuclear import of H2B histone, Ribosomal Protein S7 and Ribosomal Protein L18A. The gene encoding Importin-9 is located on human chromosome 1, the largest human chromosome that spans about 260 million base pairs and makes up 8% of the human genome

REFERENCES

1. Watson, M.L., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. *J. Exp. Med.* 172: 263-272.
2. Mühlhäusser, P., et al. 2001. Multiple pathways contribute to nuclear import of core histones. *EMBO Rep.* 2: 690-696.
3. Jäkel, S., et al. 2002. Importins fulfill a dual function as nuclear import receptors and cytoplasmic chaperones for exposed basic domains. *EMBO J.* 21: 377-386.
4. Lubert, E.J. and Sarge, K.D. 2003. Interaction between protein phosphatase 2A and members of the Importin- β superfamily. *Biochem. Biophys. Res. Commun.* 303: 908-913.
5. Kortvely, E., et al. 2005. Cloning and characterization of rat Importin-9: implication for its neuronal function. *Brain Res. Mol. Brain Res.* 139: 103-114.
6. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
7. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
8. Waldmann, I., et al. 2007. Nuclear import of c-Jun is mediated by multiple transport receptors. *J. Biol. Chem.* 282: 27685-27692.
9. Lin, W., et al. 2009. The roles of multiple importins for nuclear import of murine aristaless-related homeobox protein. *J. Biol. Chem.* 284: 20428-20439.

CHROMOSOMAL LOCATION

Genetic locus: IPO9 (human) mapping to 1q32.1; Ipo9 (mouse) mapping to 1 E4.

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.

SOURCE

Importin-9 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Importin-9 of human 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-103569 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Importin-9 (N-14) is recommended for detection of Importin-9 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other Importin family members.

Suitable for use as control antibody for Importin-9 siRNA (h): sc-78631, Importin-9 siRNA (m): sc-105575, Importin-9 shRNA Plasmid (h): sc-78631-SH, Importin-9 shRNA Plasmid (m): sc-105575-SH, Importin-9 shRNA (h) Lentiviral Particles: sc-78631-V and Importin-9 shRNA (m) Lentiviral Particles: sc-105575-V.

Molecular Weight of Importin-9: 130 kDa.

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) 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.

RESEARCH USE

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