

Importin-7 (H-78): sc-134913

BACKGROUND

Importin-7 (ran-binding protein 7, RanBP7) is a 1,038 amino acid protein encoded by the human gene IPO7. Importin-7 belongs to the Importin β family and contains one importin N-terminal domain. Importin-7 functions in nuclear protein import, either by acting as an autonomous nuclear transport receptor or as an adapter-like protein in association with the Importin β subunit KPNA1. Acting autonomously, Importin-7 is thought to serve itself as receptor for nuclear localization signals (NLS) and to promote translocation of import substrates through the nuclear pore complex (NPC) by an energy requiring, Ran-dependent mechanism. At the nucleoplasmic side of the NPC, Ran binds to Importin-7, the Importin-7/substrate complex dissociates and Importin-7 is re-exported from the nucleus to the cytoplasm where GTP hydrolysis releases Ran. Importin-7 is a nuclear protein that is expressed in most tissues.

CHROMOSOMAL LOCATION

Genetic locus: IPO7 (human) mapping to 11p15.4; Ipo7 (mouse) mapping to 7 F1.

SOURCE

Importin-7 (H-78) is a rabbit polyclonal antibody raised against amino acids 961-1038 mapping at the C-terminus of Importin-7 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.

STORAGE

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

APPLICATIONS

Importin-7 (H-78) is recommended for detection of Importin-7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Importin-7 (H-78) is also recommended for detection of Importin-7 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Importin-7 siRNA (h): sc-62501, Importin-7 siRNA (m): sc-62502, Importin-7 shRNA Plasmid (h): sc-62501-SH, Importin-7 shRNA Plasmid (m): sc-62502-SH, Importin-7 shRNA (h) Lentiviral Particles: sc-62501-V and Importin-7 shRNA (m) Lentiviral Particles: sc-62502-V.

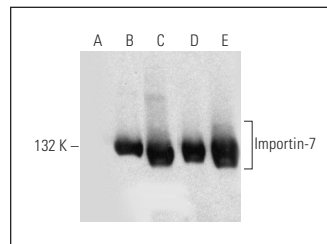
Molecular Weight of Importin-7: 120 kDa.

Positive Controls: IMR-32 nuclear extract: sc-2148, SK-N-MC nuclear extract: sc-2154 or Importin-7 (m): 293T Lysate: sc-178804.

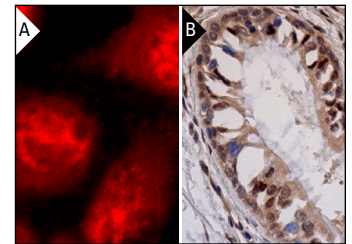
RECOMMENDED SECONDARY REAGENTS

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Importin-7 (H-78): sc-134913. Western blot analysis of Importin-7 expression in non-transfected 293T: sc-117752 (A), mouse Importin-7 transfected 293T: sc-178804 (B) and MIA PaCa-2 (C) whole cell lysates and IMR-32 (D) and SK-N-MC (E) nuclear extracts.



Importin-7 (H-78): sc-134913. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing nuclear and cytoplasmic staining of respiratory epithelial cells (B).

RESEARCH USE

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

PROTOCOLS

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



Try **Importin-7 (E-2): sc-365231** or **Importin-7 (H-12): sc-271701**, our highly recommended monoclonal alternatives to Importin-7 (H-78).