

# Importin-7 (L-17): sc-55233

## 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  $\beta$  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  $\beta$  subunit KPNB1. 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.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: *Ipo7* (mouse) mapping to 7 F1.

## SOURCE

Importin-7 (L-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Importin-7 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55233 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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 (L-17) is recommended for detection of Importin-7 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

Importin-7 (L-17) is also recommended for detection of Importin-7 in additional species, including equine, canine, bovine and porcine.

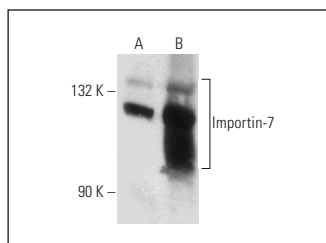
Suitable for use as control antibody for Importin-7 siRNA (m): sc-62502, Importin-7 shRNA Plasmid (m): sc-62502-SH and Importin-7 shRNA (m) Lentiviral Particles: sc-62502-V.

Molecular Weight of Importin-7: 120 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



Importin-7 (L-17): sc-55233. Western blot analysis of Importin-7 expression in IMR-32 (A) and SK-N-MC (B) nuclear extracts.

## RESEARCH USE

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

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Try **Importin-7 (E-2): sc-365231** or **Importin-7 (H-12): sc-271701**, our highly recommended monoclonal alternatives to Importin-7 (L-17).