SANTA CRUZ BIOTECHNOLOGY, INC.

# Importin-8 (C-5): sc-398854

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## 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-8, also known as IPO8 or RanBP8, is a 1,037 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one Importin N-terminal domain. One of several members of the Importin-β family, Importin-8 functions as a target for Ran (a GTPase) and is thought to play a role in nuclear protein import, acting as either an adaptor-like protein or as an autonomous nuclear transport receptor. When acting as an adaptor-like protein, Importin-8 binds to Ran at the nucleoplasmic side of the nuclear pore complex (NPC) and initiates the dissociation of the Importin complex, an event that releases the target substrate into the nucleus. Importin-8 may exist alone or as a heterodimer with karyopherin β1, another member of the Importin-β family.

## REFERENCES


1. Nakielny, S., et al. 1996. Transportin: nuclear transport receptor of a novel nuclear protein import pathway. Exp. Cell Res. 229: 261-266.
2. Görlich, D., et al. 1997. A novel class of RanGTP binding proteins. J. Cell Biol. 138: 65-80.
3. Jäkel, S. and Görlich, D. 1998. Importin-β, transportin, RanBP5 and RanBP7 mediate nuclear import of ribosomal proteins in mammalian cells. EMBO J. 17: 4491-4502.


## CHROMOSOMAL LOCATION

Genetic locus: IPO8 (human) mapping to 12p11.21; Ipo8 (mouse) mapping to 6 G3.

## SOURCE

Importin-8 (C-5) is a mouse monoclonal antibody raised against amino acids 1-59 mapping at the N-terminus of Importin-8 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.

Importin-8 (C-5) is available conjugated to agarose (sc-398854 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398854 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398854 PE), fluorescein (sc-398854 FITC), Alexa Fluor® 488 (sc-398854 AF488), Alexa Fluor® 546 (sc-398854 AF546), Alexa Fluor® 594 (sc-398854 AF594) or Alexa Fluor® 647 (sc-398854 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398854 AF680) or Alexa Fluor® 790 (sc-398854 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

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

## APPLICATIONS

Importin-8 (C-5) is recommended for detection of Importin-8 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Importin-8 siRNA (h): sc-75336, Importin-8 siRNA (m): sc-75337, Importin-8 shRNA Plasmid (h): sc-75336-SH, Importin-8 shRNA Plasmid (m): sc-75337-SH, Importin-8 shRNA (h) Lentiviral Particles: sc-75336-V and Importin-8 shRNA (m) Lentiviral Particles: sc-75337-V.

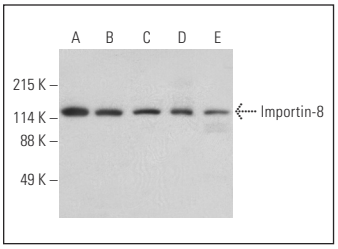
Molecular Weight of Importin-8: 120 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

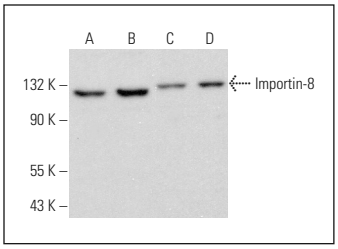
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA




Importin-8 (C-5): sc-398854. Western blot analysis of Importin-8 expression in HeLa (**A**), K-562 (**B**), MDA-MB-231 (**C**), NTERA-2 cl.D1 (**D**) and NIH/3T3 (**E**) whole cell lysates. Detection reagent used: m-$IgG_1$ BP-HRP: sc-525408.




Importin-8 (C-5): sc-398854. Western blot analysis of Importin-8 expression in K-562 (**A**), HEL 92.1.7 (**B**), BT-20 (**C**) and 3T3-L1 (**D**) whole cell lysates.

## SELECT PRODUCT CITATIONS


1. Li, X., et al. 2017. Nucleus-translocated ACSS2 promotes gene transcription for lysosomal biogenesis and autophagy. Mol. Cell 66: 684-697.e9.
2. Parashar, D., et al. 2019. miRNA551b-3p activates an oncostatin signaling module for the progression of triple-negative breast cancer. Cell Rep. 29: 4389-4406.e10.


## RESEARCH USE

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