SANTA CRUZ BIOTECHNOLOGY, INC.

scotin (C-7): sc-390725

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Scotin (protein shisha-5), also known as putative NFκB-activating protein 120, is a 240 amino acid single-pass type I membrane protein that localizes to the endoplasmic reticulum and nucleus. Scotin belongs to the shisha protein family and contains a proline-rich domain. Both caspase-dependent and p53/TP53-dependent apoptosis appear to be induced by scotin. Scotin is abundant in murine spleen and thymus tissue. The gene encoding scotin maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Key tumor suppressing genes on chromosome 3 include those that encode the apoptosis mediator RASSF1, the cell migration regulator HYAL1 and the angiogenesis suppressor SEMA3B. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

CHROMOSOMAL LOCATION

Genetic locus: SHISA5 (human) mapping to 3p21.31; Shisa5 (mouse) mapping to 9 F2.

SOURCE

scotin (C-7) is a mouse monoclonal antibody raised against amino acids 151-192 mapping near the C-terminus of scotin 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.

scotin (C-7) is available conjugated to agarose (sc-390725 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390725 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390725 PE), fluorescein (sc-390725 FITC), Alexa Fluor® 488 (sc-390725 AF488), Alexa Fluor® 546 (sc-390725 AF546), Alexa Fluor® 594 (sc-390725 AF594) or Alexa Fluor® 647 (sc-390725 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390725 AF680) or Alexa Fluor® 790 (sc-390725 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

scotin (C-7) is recommended for detection of scotin 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).

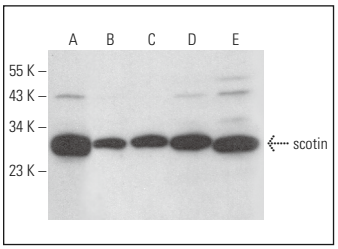
Suitable for use as control antibody for scotin siRNA (h): sc-78266, scotin siRNA (m): sc-153268, scotin shRNA Plasmid (h): sc-78266-SH, scotin shRNA Plasmid (m): sc-153268-SH, scotin shRNA (h) Lentiviral Particles: sc-78266-V and scotin shRNA (m) Lentiviral Particles: sc-153268-V.

Positive Controls: 3T3-L1 cell lysate: sc-2243, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

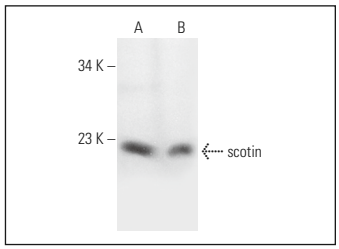
RECOMMENDED SUPPORT REAGENTS

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



scotin (C-7): sc-390725. Western blot analysis of scotin expression in U-251-MG (**A**), TK-1 (**B**), 3T3-L1 (**C**), C3H/10T1/2 (**D**) and PC-12 (**E**) whole cell lysates.



scotin (C-7): sc-390725. Western blot analysis of scotin expression in UV treated HeLa (**A**) and Hep G2 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Kim, N., et al. 2016. Interferon-inducible protein scotin interferes with HCV replication through the autolysosomal degradation of NS5A. Nat. Commun. 7: 10631.
2. Lee, J.E., et al. 2022. SHISA5/scotin restrains spontaneous autophagy induction by blocking contact between the ERES and phagophores. Autophagy 18: 1613-1628.
3. Yun, H., et al. 2023. Homotypic SCOTIN assemblies form ER-endosome membrane contacts and regulate endosome dynamics. EMBO Rep. 24: e56538.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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