

SAP 145 (C-12): sc-514930

BACKGROUND

SF3b is a U2 snRNP-associated protein complex essential for spliceosome assembly. SF3b contains the spliceosomal proteins SAP 49, SAP 130, SAP 145, and SAP 155. SAP 130, SAP 145, and SAP 155 are present in a protein complex in HeLa nuclear extracts and associate with one another. While SAP 155 and SAP 130 interact with each other (directly or indirectly) within this complex, SAP 49 and SAP 145 are known to interact directly with each other. Unexpectedly, the SAP 49-SAP 145 protein-protein interaction requires the amino-terminus of SAP 49, which contains two RNA-recognition motifs. The observation that SAP 49 and SAP 145 interact directly with both U2 snRNP and the pre-mRNA suggests that this protein complex plays a role in tethering U2 snRNP to the branch site.

CHROMOSOMAL LOCATION

Genetic locus: SF3B2 (human) mapping to 11q13.1; Sf3b2 (mouse) mapping to 19 A.

SOURCE

SAP 145 (C-12) is a mouse monoclonal antibody raised against amino acids 596-895 mapping at the C-terminus of SAP 145 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SAP 145 (C-12) is available conjugated to agarose (sc-514930 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514930 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514930 PE), fluorescein (sc-514930 FITC), Alexa Fluor® 488 (sc-514930 AF488), Alexa Fluor® 546 (sc-514930 AF546), Alexa Fluor® 594 (sc-514930 AF594) or Alexa Fluor® 647 (sc-514930 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514930 AF680) or Alexa Fluor® 790 (sc-514930 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

SAP 145 (C-12) is recommended for detection of SAP 145 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), 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).

Suitable for use as control antibody for SAP 145 siRNA (h): sc-38316, SAP 145 siRNA (m): sc-153215, SAP 145 shRNA Plasmid (h): sc-38316-SH, SAP 145 shRNA Plasmid (m): sc-153215-SH, SAP 145 shRNA (h) Lentiviral Particles: sc-38316-V and SAP 145 shRNA (m) Lentiviral Particles: sc-153215-V.

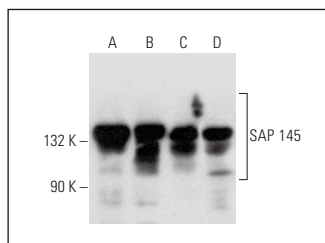
Molecular Weight of SAP 145: 145 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, HeLa nuclear extract: sc-2120 or NIH/3T3 whole cell lysate: sc-2210.

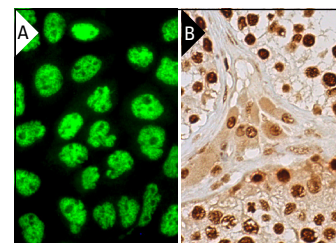
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



SAP 145 (C-12): sc-514930. Western blot analysis of SAP 145 expression in Jurkat (A) and HeLa (B) nuclear extracts and PC-12 (C) and NIH/3T3 (D) whole cell lysates.



SAP 145 (C-12): sc-514930. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear staining of cells in seminiferous ducts and nuclear and cytoplasmic staining of Leydig cells (B).

SELECT PRODUCT CITATIONS

1. Matsumoto, K., et al. 2021. G-quadruplex-forming nucleic acids interact with SF3B2 and suppress innate immune gene expression. *Genes Cells* 26: 65-82.

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.