

SAP 62 (A-3): sc-390444

BACKGROUND

SAP 62, also known as SF3A2 (splicing factor 3A subunit 2), PRPF11 or SF3a66, is a 464 amino acid protein that contains one matrix-type zinc finger and belongs to the SF3A2 family. Localized to the nucleus, SAP 62 is a subunit of the SF3A splicing factor, a heterotrimeric complex comprised of three subunits that act in tandem to mediate the binding of U2 snRNP to the branchpoint sequence (BPS) in pre-mRNA. The SF3A complex is necessary for the conversion of 15S U2 snRNP into the active 17S protein that performs directly in pre-mRNA splicing events. Functioning as the second subunit of the complex, SAP 62 interacts with subunit 1 (SAP 114) via its N-terminus while simultaneously binding to 15S U2 snRNP via its zinc finger domain. In addition to its role in RNA splicing, SAP 62 is thought to act independently as a microtubule-binding protein.

CHROMOSOMAL LOCATION

Genetic locus: SF3A2 (human) mapping to 19p13.3; Sf3a2 (mouse) mapping to 10 C1.

SOURCE

SAP 62 (A-3) is a mouse monoclonal antibody raised against amino acids 293-429 mapping near the C-terminus of SAP 62 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SAP 62 (A-3) is available conjugated to agarose (sc-390444 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390444 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390444 PE), fluorescein (sc-390444 FITC), Alexa Fluor® 488 (sc-390444 AF488), Alexa Fluor® 546 (sc-390444 AF546), Alexa Fluor® 594 (sc-390444 AF594) or Alexa Fluor® 647 (sc-390444 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390444 AF680) or Alexa Fluor® 790 (sc-390444 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

SAP 62 (A-3) is recommended for detection of SAP 62 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 62 siRNA (h): sc-76445, SAP 62 siRNA (m): sc-76446, SAP 62 shRNA Plasmid (h): sc-76445-SH, SAP 62 shRNA Plasmid (m): sc-76446-SH, SAP 62 shRNA (h) Lentiviral Particles: sc-76445-V and SAP 62 shRNA (m) Lentiviral Particles: sc-76446-V.

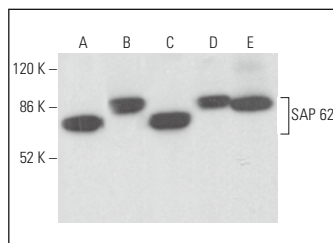
Molecular Weight of SAP 62: 66 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, BYDP whole cell lysate: sc-364368 or A549 cell lysate: sc-2413.

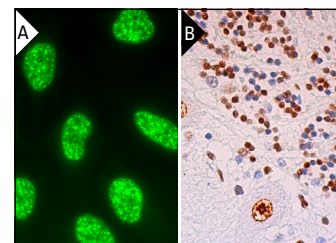
RECOMMENDED SUPPORT REAGENTS

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 62 (A-3): sc-390444. Western blot analysis of SAP 62 expression in HeLa (A) and NIH/3T3 (B) nuclear extracts, A549 (C) and BYDP (D) whole cell lysates and rat lymph node tissue extract (E).



SAP 62 (A-3): sc-390444. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing nuclear staining of Purkinje cells, cells in granular layer and cells in molecular layer (B).

SELECT PRODUCT CITATIONS

- Nandakumar, S.K., et al. 2019. Gene-centric functional dissection of human genetic variation uncovers regulators of hematopoiesis. *Elife* 8: e44080.
- Jin, L., et al. 2020. STRAP regulates alternative splicing fidelity during lineage commitment of mouse embryonic stem cells. *Nat. Commun.* 11: 5941.
- Onea, G., et al. 2022. Distinct nuclear and cytoplasmic assemblies and interactomes of the mammalian CTLH E3 ligase complex. *J. Cell Sci.* 135: jcs259638.

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.