**BACKGROUND**

SF3b is a U2 snRNP-associated protein complex essential for spliceosome assembly. SF3b contains the spliceosomal proteins SAP49, SAP130, SAP145, and SAP155. SAP130, SAP145, and SAP155 are present in a protein complex in HeLa nuclear extracts and associate with one another. While SAP155 and SAP130 interact with each other (directly or indirectly) within this complex, SAP49 and SAP145 are known to interact directly with each other. Unexpectedly, the SAP49-SAP145 protein-protein interaction requires the amino-terminus of SAP49, which contains two RNA-recognition motifs. The observation that SAP49 and SAP145 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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: SF3B4 (human) mapping to 1q21.2; SF3B4 (mouse) mapping to 3 F2.1.

**SOURCE**

SAP49 (G-7) is a mouse monoclonal antibody raised against amino acids 145-216 mapping within an internal region of SAP49 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

SAP49 (G-7) is recommended for detection of SAP49 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 SAP49 siRNA (h): sc-38313, SAP49 siRNA (m): sc-153218, SAP49 shRNA Plasmid (h): sc-38313-SH, SAP49 shRNA Plasmid (m): sc-153218-SH, SAP49 shRNA (h) Lentiviral Particles: sc-38313-V and SAP49 shRNA (m) Lentiviral Particles: sc-153218-V.

Molecular Weight of SAP49: 49 kDa.

Positive Controls: PC-3 cell lysate: sc-2220, MCF7 whole cell lysate: sc-2206 or HeLa whole cell lysate: sc-2200.

**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, 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 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**

![Western blot analysis of SAP49 expression in MCF7 (A), PC-3 (B) and HeLa (C) whole cell lysates.](image)

**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 website at www.scbt.com for detailed protocols and support products.