

SF3B3 (S-15): sc-21324

BACKGROUND

SF3B is a U2 snRNP-associated protein complex essential for spliceosome assembly. SF3B contains the spliceosomal proteins SAP 49, SAP 130 (also known as SF3B3), SAP 145 and SAP 155. SF3B3, SAP 145 and SAP 155 are present in a protein complex in HeLa nuclear extracts and associate with one another. While SF3B3 and SAP 155 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.

REFERENCES

1. Champion-Arnaud, P., et al. 1994. The prespliceosome components SAP 49 and SAP 145 interact in a complex implicated in tethering U2 snRNP to the branch site. *Genes Dev.* 8: 1974-1983.
2. Wells, S.E., et al. 1996. CUS1, a suppressor of cold-sensitive U2 snRNA mutations, is a novel yeast splicing factor homologous to human SAP 145. *Genes Dev.* 10: 220-232.
3. Igel, H., et al. 1998. Conservation of structure and subunit interactions in yeast homologues of splicing factor 3 β (SF3B) subunits. *RNA* 4: 1-10.
4. Das, B.K., et al. 1999. Characterization of a protein complex containing spliceosomal proteins SAPs 49, 130, 145, and 155. *Mol. Cell. Biol.* 19: 6796-6802.
5. Kramer, A., et al. 1999. Combined biochemical and electron microscopic analyses reveal the architecture of the mammalian U2 snRNP. *J. Cell Biol.* 145: 1355-1368.

CHROMOSOMAL LOCATION

Genetic locus: SF3B3 (human) mapping to 16q22.1; Sf3b3 (mouse) mapping to 8 E1.

SOURCE

SF3B3 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SF3B3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-21324 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

SF3B3 (S-15) is recommended for detection of SF3B3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

SF3B3 (S-15) is also recommended for detection of SF3B3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SF3B3 siRNA (h): sc-38314, SF3B3 siRNA (m): sc-38315, SF3B3 shRNA Plasmid (h): sc-38314-SH, SF3B3 shRNA Plasmid (m): sc-38315-SH, SF3B3 shRNA (h) Lentiviral Particles: sc-38314-V and SF3B3 shRNA (m) Lentiviral Particles: sc-38315-V.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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



Try **SF3B3 (B-4): sc-398670** or **SF3B3 (D-2): sc-514034**, our highly recommended monoclonal alternatives to SF3B3 (S-15).