

SAP 145 (A-20): sc-14279

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.

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 3b (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: SF3B2 (human) mapping to 11q13.1.

SOURCE

SAP 145 (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SAP 145 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-14279 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-14279 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

SAP 145 (A-20) is recommended for detection of SAP 145 of human origin by Western Blotting (starting dilution 1:200, 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), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SAP 145 (A-20) is also recommended for detection of SAP 145 in additional species, including equine, canine, bovine and porcine.

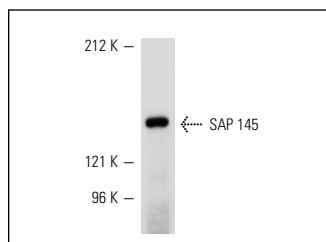
Suitable for use as control antibody for SAP 145 siRNA (h): sc-38316, SAP 145 shRNA Plasmid (h): sc-38316-SH and SAP 145 shRNA (h) Lentiviral Particles: sc-38316-V.

SAP 145 (A-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

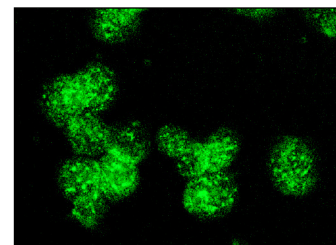
Molecular Weight of SAP 145: 145 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132.

DATA



SAP 145 (A-20): sc-14279. Western blot analysis of SAP 145 expression in Jurkat nuclear extract.



SAP 145 (A-20): sc-14279. Immunofluorescence staining of methanol-fixed Jurkat cells showing nuclear staining.

SELECT PRODUCT CITATIONS

1. Sano, E., et al. 2008. Novel tyrosine phosphorylated and cardiolipin-binding protein CLPABP functions as mitochondrial RNA granule. *Biochim. Biophys. Acta* 1783: 1036-1047.
2. Yamasaki, S., et al. 2008. Mincle is an ITAM-coupled activating receptor that senses damaged cells. *Nat. Immunol.* 9: 1179-1188.

RESEARCH USE

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

MONOS
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Try **SAP 145 (C-12): sc-514930** or **SAP 145 (D-4): sc-514976**, our highly recommended monoclonal alternatives to SAP 145 (A-20).