

SAP 155 (N-13): sc-132447

BACKGROUND

SAP 155 (spliceosome-associated protein 155), also known as SF3B1, SF3B155 (splicing factor 3 β , subunit 1, 155 kDa), PRP10 or PRPF10, is a 1,304 amino acid member of the SF3B1 family and contains 11 HEAT repeats. Localized to nuclear speckles and also to the cytoplasm during mitosis, SAP 155 is a subunit of the SF3B splicing factor. The SF3B splicing factor 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. Concomitant with splicing catalysis, SAP 155 is phosphorylated at its N-terminal Thr-Pro dipeptide motifs by Dyrk1A and cyclin E/Cdk2. This modification of SAP 155 is vital for a functional spliceosome as it is an essential event in the basic splicing reaction. Due to alternative splicing events, various SAP 155 isoforms are produced.

REFERENCES

1. Wang, C., et al. 1998. Phosphorylation of spliceosomal protein SAP 155 coupled with splicing catalysis. *Genes Dev.* 12: 1409-1414.
2. Isono, K., et al. 2001. Molecular cloning, genetic mapping, and expression of the mouse Sf3b1 (SAP 155) gene for the U2 snRNP component of spliceosome. *Mamm. Genome* 12: 192-198.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605590. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Golas, M.M., et al. 2003. Molecular architecture of the multiprotein splicing factor SF3B. *Science* 300: 980-984.
5. Isono, K., et al. 2005. Mammalian polycomb-mediated repression of Hox genes requires the essential spliceosomal protein SF3B1. *Genes Dev.* 19: 536-541.
6. Cass, D.M., et al. 2006. The SF3B155 N-terminal domain is a scaffold important for splicing. *Biochemistry* 45: 10092-10101.

CHROMOSOMAL LOCATION

Genetic locus: SF3B1 (human) mapping to 2q33.1; Sf3b1 (mouse) mapping to 1 C1.2.

SOURCE

SAP 155 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SAP 155 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-132447 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.

APPLICATIONS

SAP 155 (N-13) is recommended for detection of SAP 155 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); non cross-reactive with other SAP family members.

Suitable for use as control antibody for SAP 155 siRNA (h): sc-94471, SAP 155 siRNA (m): sc-153216, SAP 155 shRNA Plasmid (h): sc-94471-SH, SAP 155 shRNA Plasmid (m): sc-153216-SH, SAP 155 shRNA (h) Lentiviral Particles: sc-94471-V and SAP 155 shRNA (m) Lentiviral Particles: sc-153216-V.

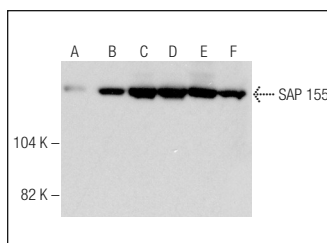
Molecular Weight of SAP 155: 155 kDa.

Positive Controls: SAP 155 (m): 293T Lysate: sc-110269, Jurkat nuclear extract: sc-2132 or K-562 nuclear extract: sc-2130.

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.

DATA



SAP 155 (N-13): sc-132447. Western blot analysis of SAP 155 expression in non-transfected: sc-117752 (A) and mouse SAP 155 transfected: sc-110269 (B) 293T whole cell lysates and Jurkat (C), K-562 (D), Ramos (E) and MCF7 (F) nuclear extracts.

RESEARCH USE

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

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Try **SAP 155 (B-3): sc-514655** or **SAP 155 (G-9): sc-514494**, our highly recommended monoclonal alternatives to SAP 155 (N-13).