



# SAP 14 (T-13): sc-161214

## BACKGROUND

SAP 14 (spliceosome-associated protein, 14 kDa subunit), also known as P14, Ht006, CGI-110, HSPC175 or SF3B14a, is a 125 amino acid nuclear protein that is a component of the splicing factor 3b complex. Splicing factor 3b associates with both the U2 and U11/U12 small nuclear ribonucleoprotein complexes (U2 snRNP) of spliceosomes. Required for the splicing of pre-mRNA, SAP 14 enters the spliceosome and associates with the pre-mRNA branch site facilitating the interaction of snRNP with the branch sites of U2 and U12 of the 17S U2 and the 18S U11/U12 snRNP complex. SAP 14 contains a highly conserved RRM (RNA recognition motif) domain and interacts with SAP 155. SAP 14 is encoded by a gene located on human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome.

## REFERENCES

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3. Will, C.L., et al. 2001. A novel U2 and U11/U12 snRNP protein that associates with the pre-mRNA branch site. *EMBO J.* 20: 4536-4546.
4. Golas, M.M., et al. 2005. Major conformational change in the complex SF3b upon integration into the spliceosomal U11/U12 di-snRNP as revealed by electron cryomicroscopy. *Mol. Cell* 17: 869-883.
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6. Dybkov, O., et al. 2006. U2 snRNA-protein contacts in purified human 17S U2 snRNPs and in spliceosomal A and B complexes. *Mol. Cell. Biol.* 26: 2803-2816.
7. Spadaccini, R., et al. 2006. Biochemical and NMR analyses of an SF3b155-p14-U2AF-RNA interaction network involved in branch point definition during pre-mRNA splicing. *RNA* 12: 410-425.
8. Kühn-Hölsken, E., et al. 2007. Improved identification of enriched peptide RNA cross-links from ribonucleoprotein particles (RNPs) by mass spectrometry. *Nucleic Acids Res.* 35: e95.
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## CHROMOSOMAL LOCATION

Genetic locus: SF3B14 (human) mapping to 2p23.3; 0610009D07Rik (mouse) mapping to 12 A1.1.

## SOURCE

SAP 14 (T-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SAP 14 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-161214 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SAP 14 (T-13) is recommended for detection of SAP 14 of human origin and SF3B14 of mouse origin and the corresponding rat homolog 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.

SAP 14 (T-13) is also recommended for detection of SAP 14 of in additional species, including equine and avian.

Suitable for use as control antibody for SAP 14 siRNA (h): sc-94634, SF3B14 siRNA (m): sc-153394, SAP 14 shRNA Plasmid (h): sc-94634-SH, SF3B14 shRNA Plasmid (m): sc-153394-SH, SAP 14 shRNA (h) Lentiviral Particles: sc-94634-V and SF3B14 shRNA (m) Lentiviral Particles: sc-153394-V.

Molecular Weight of SAP 14: 14 kDa.

## 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.