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SF3A1 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP1932a

Specification

SF3A1 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q15459

SF3A1 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 10291

Other Names
Splicing factor 3A subunit 1, SF3a120, Spliceosome-associated protein 114, SAP 114, SF3A1, SAP114

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1932a was selected from the Center region of human SF3A1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SF3A1 Antibody (Center) Blocking Peptide - Protein Information

Name SF3A1

Synonyms SAP114

Function
Component of the 17S U2 SnRNP complex of the spliceosome, a large ribonucleoprotein complex that removes introns from transcribed pre-mRNAs (PubMed:10882114, PubMed:11533230, PubMed:32494006). The 17S U2 SnRNP complex (1) directly participates in early spliceosome assembly and (2) mediates recognition of the intron branch site during pre-mRNA splicing by promoting the selection of the pre-mRNA branch- site adenosine, the nucleophile for the first step of splicing (PubMed:10882114, PubMed:<a

href="http://www.uniprot.org/citations/11533230" target="_blank">11533230, PubMed:32494006). Within the 17S U2 SnRNP complex, SF3A1 is part of the SF3A subcomplex that contributes to the assembly of the 17S U2 snRNP, and the subsequent assembly of the pre-spliceosome 'E' complex and the pre-catalytic spliceosome 'A' complex (PubMed:10882114, PubMed:11533230). Involved in pre-mRNA splicing as a component of pre-catalytic spliceosome 'B' complexes (PubMed:29360106, PubMed:30315277).

Cellular Location
Nucleus. Nucleus speckle

Tissue Location
Ubiquitously expressed.

SF3A1 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

SF3A1 Antibody (Center) Blocking Peptide - Images

SF3A1 Antibody (Center) Blocking Peptide - Background

SF3A1 is subunit 1 of the splicing factor 3a protein complex. The splicing factor 3a heterotrimer includes subunits 1, 2 and 3 and is necessary for the in vitro conversion of 15S U2 snRNP into an active 17S particle that performs pre-mRNA splicing. Subunit 1 belongs to the SURP protein family, named for the SURP (also called SWAP or Suppressor-of-White-APricot) motifs that are thought to mediate RNA binding. Subunit 1 has tandemly repeated SURP motifs in its amino-terminal half while its carboxy-terminal half contains a proline-rich region and a ubiquitin-like domain. Binding studies with truncated subunit 1 derivatives demonstrated that the two SURP motifs are necessary for binding to subunit 3 while contacts with subunit 2 may occur through sequences carboxy-terminal to the SURP motifs.

SF3A1 Antibody (Center) Blocking Peptide - References

Beausoleil, S.A., et al., Proc. Natl. Acad. Sci. U.S.A. 101(33):12130-12135 (2004).Nesic, D., et al., Mol. Cell. Biol. 21(19):6406-6417 (2001).Das, R., et al., Mol. Cell 5(5):779-787 (2000).Ajuh, P., et al., EMBO J. 19(23):6569-6581 (2000).Kramer, A., et al., J. Cell Biol. 145(7):1355-1368 (1999).