

SF3B4 Antibody(Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP19396c

Specification

SF3B4 Antibody(Center) - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Isotype Calculated MW Antigen Region WB,E <u>O15427</u> <u>O6AYL5</u>, <u>O8OZY9</u>, <u>NP_005841.1</u> Human Mouse, Rat Rabbit Polyclonal Rabbit IgG 44386 158-187

SF3B4 Antibody(Center) - Additional Information

Gene ID 10262

Other Names Splicing factor 3B subunit 4, Pre-mRNA-splicing factor SF3b 49 kDa subunit, SF3b50, Spliceosome-associated protein 49, SAP 49, SF3B4, SAP49

Target/Specificity

This SF3B4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 158-187 amino acids from the Central region of human SF3B4.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SF3B4 Antibody(Center) is for research use only and not for use in diagnostic or therapeutic procedures.

SF3B4 Antibody(Center) - Protein Information

Name SF3B4



Synonyms SAP49

Function Component of the 17S U2 SnRNP complex of the spliceosome, a large ribonucleoprotein complex that removes introns from transcribed pre-mRNAs (PubMed:<u>10882114</u>, PubMed:<u>12234937</u>, PubMed:<u>27720643</u>, PubMed:<u>32494006</u>). 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:<u>12234937</u>, PubMed:<u>32494006</u>). Within the 17S U2 SnRNP complex, SF3B4 is part of the SF3B subcomplex, which is required for 'A' complex assembly formed by the stable binding of U2 snRNP to the branchpoint sequence in pre-mRNA (PubMed:<u>12234937</u>, PubMed:<u>27720643</u>). Sequence independent binding of SF3A and SF3B subcomplexes upstream of the branch site is essential, it may anchor U2 snRNP to the pre-mRNA (PubMed:<u>12234937</u>). May also be involved in the assembly of the 'E' complex (PubMed:<u>10882114</u>). Also acts as a component of the minor spliceosome, which is involved in the splicing of U12-type introns in pre-mRNAs (PubMed:<u>15146077</u>, PubMed:<u>33509932</u>).

Cellular Location Nucleus

SF3B4 Antibody(Center) - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

SF3B4 Antibody(Center) - Images



SF3B4 Antibody (Center)(Cat. #AP19396c) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the SF3B4 antibody detected the SF3B4 protein (arrow).

SF3B4 Antibody(Center) - Background

This gene encodes one of four subunits of the splicing



factor 3B. The protein encoded by this gene cross-links to a region in the pre-mRNA immediately upstream of the branchpoint sequence in pre-mRNA in the prespliceosomal complex A. It also may be involved in the assembly of the B, C and E spliceosomal complexes. In addition to RNA-binding activity, this protein interacts directly and highly specifically with subunit 2 of the splicing factor 3B. This protein contains two N-terminal RNA-recognition motifs (RRMs), consistent with the observation that it binds directly to pre-mRNA.

SF3B4 Antibody(Center) - References

Gudbjartsson, D.F., et al. Nat. Genet. 40(5):609-615(2008) Rikova, K., et al. Cell 131(6):1190-1203(2007) Watanabe, H., et al. J. Biol. Chem. 282(28):20728-20738(2007) Wu, C., et al. Proteomics 7(11):1775-1785(2007) Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :