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SF3B4 Antibody(Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19396c

Product Information

Application	WB, E
Primary Accession	Q15427
Other Accession	Q6AYL5, Q8QZY9, NP_005841.1
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB40410
Calculated MW	44386
Antigen Region	158-187

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.

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:10882114, PubMed:12234937, PubMed:27720643, 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:12234937, PubMed:32494006). 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:12234937, PubMed:27720643). 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:12234937). May also be involved in the assembly of the 'E' complex (PubMed:10882114). Also acts as a component of the minor spliceosome, which is involved in the splicing of U12-type introns in pre-mRNAs (PubMed:15146077, PubMed:33509932).
Cellular Location	Nucleus

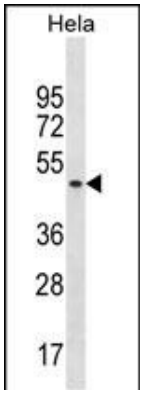
Background

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.

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) :

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).