

# SF3B2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP16199c

## **Product Information**

Application WB, E
Primary Accession Q13435
Other Accession NP 006833.2
Reactivity Human, Rat, Mouse

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Clone Names RB35626
Calculated MW 100228
Antigen Region 539-568

## **Additional Information**

**Gene ID** 10992

Other Names Splicing factor 3B subunit 2, Pre-mRNA-splicing factor SF3b 145 kDa subunit,

SF3b145, SF3b150, Spliceosome-associated protein 145, SAP 145, SF3B2,

SAP145

**Target/Specificity** This SF3B2 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 539-568 amino acids from the Central

region of human SF3B2.

**Dilution** WB~~1:2000 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** SF3B2 Antibody (Center) is for research use only and not for use in diagnostic

or therapeutic procedures.

## **Protein Information**

Name SF3B2

Synonyms SAP145

#### **Function**

Component of the 17S U2 SnRNP complex of the spliceosome, a large ribonucleoprotein complex that removes introns from transcribed pre-mRNAs (PubMed:12234937, PubMed:32494006, PubMed:34822310). 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, PubMed:34822310). Within the 17S U2 SnRNP complex, SF3B2 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. Nucleus speckle

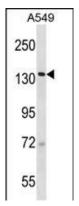
# **Background**

This gene encodes subunit 2 of the splicing factor 3b protein complex. Splicing factor 3b, together with splicing factor 3a and a 12S RNA unit, forms the U2 small nuclear ribonucleoproteins complex (U2 snRNP). The splicing factor 3b/3a complex binds pre-mRNA upstream of the intron's branch site in a sequence-independent manner and may anchor the U2 snRNP to the pre-mRNA. Splicing factor 3b is also a component of the minor U12-type spliceosome. Subunit 2 associates with pre-mRNA upstream of the branch site at the anchoring site. Subunit 2 also interacts directly with subunit 4 of the splicing factor 3b complex. Subunit 2 is a highly hydrophilic protein with a proline-rich N-terminus and a glutamate-rich stretch in the C-terminus. [provided by RefSeq].

### References

Matsuoka, S., et al. Science 316(5828):1160-1166(2007) Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007): Olsen, J.V., et al. Cell 127(3):635-648(2006) Olsen, J.V., et al. Cell 127(3):635-648(2006) Terada, Y., et al. Mol. Cell. Biol. 26(21):8149-8158(2006)

# **Images**



SF3B2 Antibody (Center) (Cat. #AP16199c) western blot analysis in A549 cell line lysates (35ug/lane). This demonstrates the SF3B2 antibody detected the SF3B2 protein (arrow).

# **Citations**

• <u>Cellular Cleavage and Polyadenylation Specificity Factor 6 (CPSF6) Mediates Nuclear Import of Human Bocavirus 1 NP1</u> <u>Protein and Modulates Viral Capsid Protein Expression</u>
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