

SF3B4 Antibody (clone 3A1)
Mouse Monoclonal Antibody
Catalog # ALS16098**Specification**

SF3B4 Antibody (clone 3A1) - Product Information

Application	WB, ICC, IHC
Primary Accession	Q15427
Reactivity	Human, Mouse, Rat, Pig, Bovine
Host	Mouse
Clonality	Monoclonal
Calculated MW	44kDa KDa

SF3B4 Antibody (clone 3A1) - 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

Clone 3A1 is known to react with SF3B4 from human, cow, pig, mouse, rat and other mammals. Since the SF3B4 protein sequence is highly conserved across species barriers, it is likely that the antibody is effective on many other species also.

Reconstitution & Storage

+4°C or -20°C, Avoid repeated freezing and thawing.

Precautions

SF3B4 Antibody (clone 3A1) is for research use only and not for use in diagnostic or therapeutic procedures.

SF3B4 Antibody (clone 3A1) - 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](http://www.uniprot.org/citations/10882114), PubMed: [12234937](http://www.uniprot.org/citations/12234937), PubMed: [27720643](http://www.uniprot.org/citations/27720643), PubMed: [32494006](http://www.uniprot.org/citations/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

Volume

50 μ l

SF3B4 Antibody (clone 3A1) - Protocols

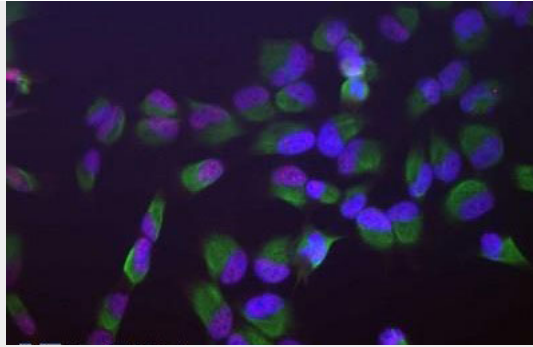
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

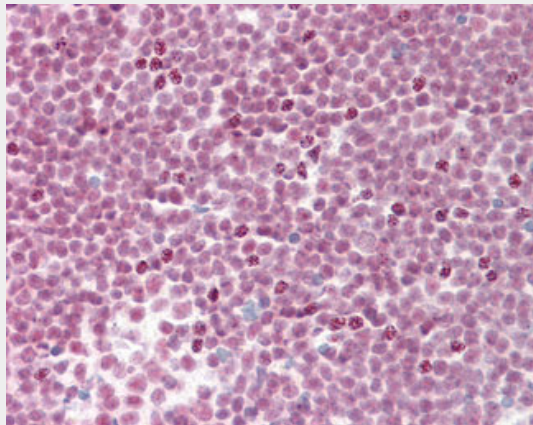
SF3B4 Antibody (clone 3A1) - Images



Blots of HeLa cell crude extract stained with SF3B4 antibody.



Human HeLa cells stained with SF3B4 antibody (red), chicken antibody to vimentin (green) and DNA...



Anti-SF3B4 antibody IHC staining of human tonsil.

SF3B4 Antibody (clone 3A1) - Background

Subunit of the splicing factor SF3B required for 'A' complex assembly formed by the stable binding of U2 snRNP to the branchpoint sequence (BPS) in pre-mRNA. Sequence independent binding of SF3A/SF3B complex upstream of the branch site is essential, it may anchor U2 snRNP to the pre-mRNA. May also be involved in the assembly of the 'E' complex. SF3B4 has been found in complex 'B' and 'C' as well. Belongs also to the minor U12- dependent spliceosome, which is involved in the splicing of rare class of nuclear pre-mRNA intron.

SF3B4 Antibody (clone 3A1) - References

- Champion-Arnaud P., et al. *Genes Dev.* 8:1974-1983(1994).
- Gregory S.G., et al. *Nature* 441:315-321(2006).
- Mural R.J., et al. Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
- Bienvenut W.V., et al. Submitted (DEC-2008) to UniProtKB.
- Das R., et al. *Mol. Cell* 5:779-787(2000).