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Goat Anti-SF3B4 / SAP49 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1983a

Specification

Goat Anti-SF3B4 / SAP49 Antibody - Product Information

Application	**WB, E**
Primary Accession	Q15427
Other Accession	NP_005841, 10262, 107701 (mouse)
Reactivity	**Human**
Predicted	**Mouse, Rat, Pig, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**44386**

Goat Anti-SF3B4 / SAP49 Antibody - 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

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-SF3B4 / SAP49 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-SF3B4 / SAP49 Antibody - 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

Goat Anti-SF3B4 / SAP49 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-SF3B4 / SAP49 Antibody - Images

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AF1983a staining (0.1 µg/ml) of Hela lysate (RIPA buffer, 35 µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.

Goat Anti-SF3B4 / SAP49 Antibody - 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.

Goat Anti-SF3B4 / SAP49 Antibody - References

Many sequence variants affecting diversity of adult human height. Gudbjartsson DF, et al. Nat Genet, 2008 May. PMID 18391951.
Splicing factor 3b subunit 4 binds BMPR-IA and inhibits osteochondral cell differentiation. Watanabe H, et al. J Biol Chem, 2007 Jul 13. PMID 17513295.
Systematic identification of SH3 domain-mediated human protein-protein interactions by peptide array target screening. Wu C, et al. Proteomics, 2007 Jun. PMID 17474147.
Large-scale mapping of human protein-protein interactions by mass spectrometry. Ewing RM, et al. Mol Syst Biol, 2007. PMID 17353931.
Human immunodeficiency virus type 1 Vpr induces G2 checkpoint activation by interacting with the splicing factor SAP145. Terada Y, et al. Mol Cell Biol, 2006 Nov. PMID 16923959.