

SF3B3 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP12703b

Product Information

Application WB, E **Primary Accession** Q15393

Reactivity Human Bovine, Mouse

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Clone Names RB32074
Calculated MW 135577
Antigen Region 1046-1074

Additional Information

Gene ID 23450

Other Names Splicing factor 3B subunit 3, Pre-mRNA-splicing factor SF3b 130 kDa subunit,

SF3b130, STAF130, Spliceosome-associated protein 130, SAP 130, SF3B3,

KIAA0017, SAP130

Target/Specificity This SF3B3 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 1046-1074 amino acids from the

C-terminal region of human SF3B3.

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 SF3B3 Antibody (C-term) is for research use only and not for use in diagnostic

or therapeutic procedures.

Protein Information

Name SF3B3

Synonyms KIAA0017, SAP130 {ECO:0000303 | PubMed:104

Function

Component of the 17S U2 SnRNP complex of the spliceosome, a large ribonucleoprotein complex that removes introns from transcribed pre-mRNAs (PubMed: 10490618, PubMed: 10882114, PubMed: 12234937, PubMed:27720643, PubMed:28781166, 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, SF3B3 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

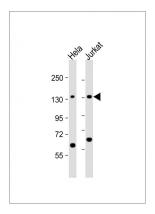
Background

This gene encodes subunit 3 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 3 has also been identified as a component of the STAGA (SPT3-TAF(II)31-GCN5L acetylase) transcription coactivator-HAT (histone acetyltransferase) complex, and the TFTC (TATA-binding-protein-free TAF(II)-containing complex). These complexes may function in chromatin modification, transcription, splicing, and DNA repair.

References

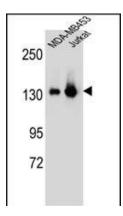
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010): Will, C.L., et al. RNA 10(6):929-941(2004) Cavusoglu, N., et al. Proteomics 3(2):217-223(2003) Will, C.L., et al. EMBO J. 21(18):4978-4988(2002) Martinez, E., et al. Mol. Cell. Biol. 21(20):6782-6795(2001)

Images



All lanes: Anti-SF3B3 Antibody (C-term) at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: Jurkat whole cell lysate Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 136 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

SF3B3 Antibody (C-term) (Cat. #AP12703b) western blot



analysis in MDA-MB453, Jurkat cell line lysates (35ug/lane). This demonstrates the SF3B3 antibody detected the SF3B3 protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.