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PRODUCT DATASHEET

# Anti-Splicing factor 3B subunit 4 (SF3B4) Antibody

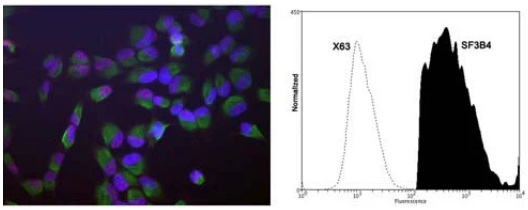
## Product Details

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| **Available Variants** | 100 µg (SKU:M-1576-100) |
| **Conjugate** | Unconjugated |
| **Isotype** | IgG2b |
| **Clone** | 3A1 |
| **Host Species** | Mouse |
| **Format** | Affinity-purified |
| **Physical State** | Lyophilized |
| **Buffer** | Lyophilized from PBS buffer pH 7.2-7.6 with 0.1% trehalose, and sodium azide |
| **Production Notes** | Protein G purified |
| **Applications** | Flow, ICC, WB |
| **Dilution Ranges** | WB: 1:1000<br>ICC: 1:500-1:2000 |
| **Species Reactivity** | Bovine, Human, Mouse, Pig, Rat |
| **Immunogen** | Full length recombinant human SF3B4 which was expressed in and purified from E. coli. |
| **Specificity** | Human SF3B4 ; bovine; Porcine; mouse; rat; expected to react with other species due to sequence homology. |
| **Molecular Weight** | 49 kDa |
| **Storage** | Spin vial briefly before opening. Reconstitute with 100 µL sterile-filtered, ultrapure water to achieve a 1 mg/mL concentration. Centrifuge to remove any insoluble material. Aliquot and store at -20°C for a higher stability and at 2-8°C with an appropriate antibacterial agent. Avoid freeze-thaw cycles. |
| **UniProt ID** | Q15427<br>UniProt Summary: Component of the 17S U2 SnRNP complex of the |

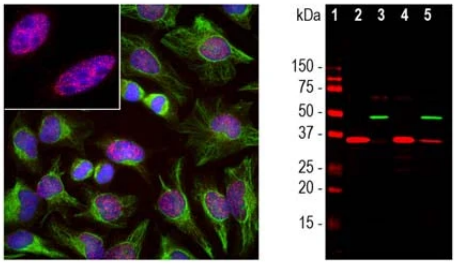
spliceosome, a large ribonucleoprotein complex that removes introns from transcribed pre-mRNAs. The 17S U2 SnRNP complex (1) directly participates in early spliceosome assembly and (2) mediates recognition of the intron branch site during pre-mRNA splicing by promoting the selection of the pre-mRNA branch-site adenosine, the nucleophile for the first step of splicing. 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. Sequence independent binding of SF3A and SF3B subcomplexes 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. Also acts as a component of the minor spliceosome, which is involved in the splicing of U12-type introns in pre-mRNAs.

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| **Country of Origin** | United States |
| **Shipping** | 25°C (ambient) |
| **Expiration** | 12 months after date of receipt (unopened vial). |
| **Usage Statement** | For research use only. |
| **NCBI Gene ID** | 10262 |

## Product Images




**Left:** Human HeLa cells stained with Mouse monoclonal antibody to splicing factor SF3B4 M-1576-100 (red), Chicken polyclonal antibody to Vimentin C-1409-50 (green) and DNA (blue, stained with DAPI). The monoclonal SF3B4 antibody reveals strong granular nuclear staining which is a little different from the DNA stain and presumably reflects splicosomal complexes. The polyclonal Vimentin antibody stains the cytoplasmic intermediate filament network of the HeLa cells. **Right:** Analysis of SF3B4 expression in rat pheochromocytoma PC-12 cell line by Flow Cytometry. Fixing and Permeabilization of cells: Absolute methanol (10 minutes in ice) and 0.1% Tween-20 in PBS, Blocking: 1% BSA, Primary antibody: Mouse Monoclonal antibody to SF3B4 (cat # M-1576-100, 2µg per ~10^6 cells) for 30 minutes at room temperature, Secondary antibody: Goat anti-mouse PE labeled secondary antibody (1:100 fold dilution) with incubation for 20 minutes in dark at room temperature. Non-specific Control IgG, clone X63 (cat # M-1249-100) was used as negative control under same conditions (black dashed). Flow cytometry data and results were generated using Orflo MoxiflowTM instrument and protocols.




**Left:** Analysis of SF3B4 expression in HeLa cells by **Immunocytochemistry**. Cells were stained with mouse antibody to splicing factor SF3B4 (red, 1:1,000), and co-stained with chicken antibody to vimentin (C-1409-50, green, 1:10,000). Blue: DAPI nuclear stain. The SF3B4 antibody reveals strong granular staining of the nuclei, while the vimentin antibody specifically labels cytoplasmic intermediate filaments. **Right: Western blot** analysis of cell lysates, cytosol- or nuclear-enriched fractions, using mouse antibody to splicing factor SF3B4 (green, 1:1,000). [1] protein standard, [2] NIH-3T3 cytosolic fraction, [3] NIH-3T3 nuclear fraction, [4] HeLa cytosolic and [5] HeLa nuclear fractions. A strong single band at 49 kDa represents the SF3B4 protein, which is expressed exclusively in the nuclei. The same blot was simultaneously probed with rabbit anti-GAPDH antibody (R-1701-100, red, 1:20,000, lanes 2-5). The 37 kDa band corresponds to the GAPDH protein, detected mainly in the cytosolic fractions of these cells.