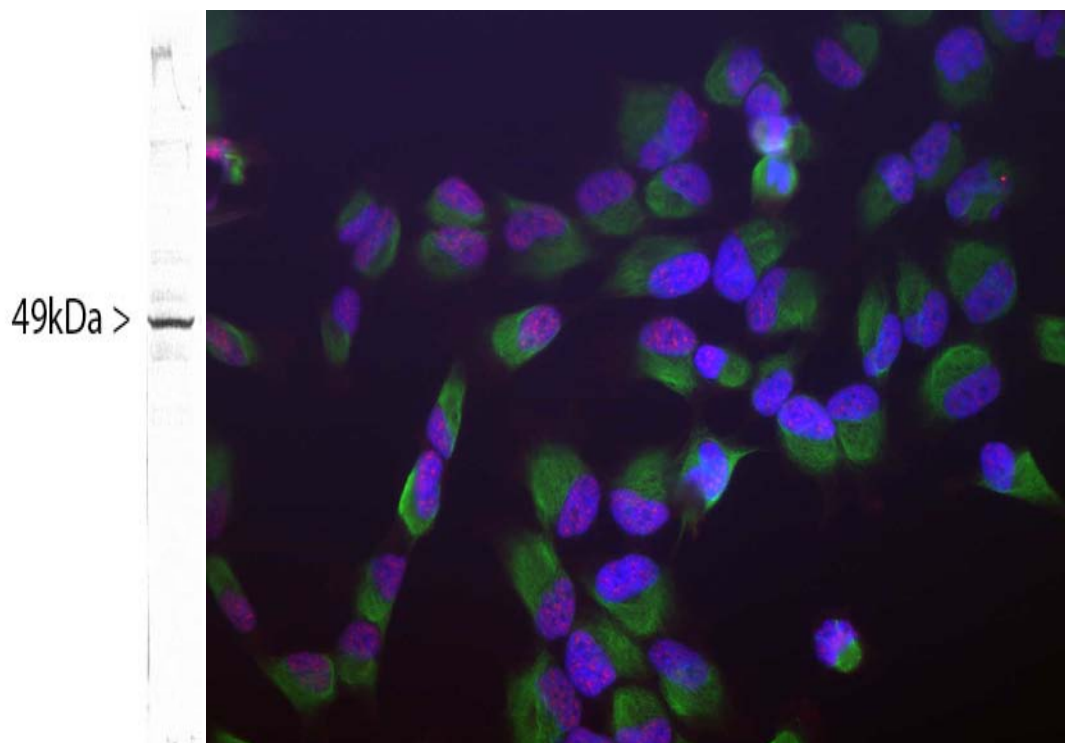


Catalogue# MCA-3A1: Mouse Monoclonal Antibody to splicing factor SF3B4

Splicing factor SF3B4, also known as SAP49, is a ubiquitously expressed splicing factor found in the nuclei of eukaryotic cells, although it migrates into the cytoplasm of dividing cells. It was originally identified by as the protein most efficiently UV cross-linked to the A, B and C spliceosomal complexes (1).

The protein contains two of the highly conserved [RRM](#) type RNA recognition motifs, each corresponding to a small ~70 amino acid structure, consisting of 4 beta strands and two alpha-helices. Proteins containing these proteins are believed to have a role in the regulation of mRNA splicing. The protein runs on SDS-PAGE gels at an apparent molecular weight of 49kDa. This protein is known as splicing factor 3b, subunit 4, 49kDa SAP49, spliceosome-associated protein (U2 snRNP), Hsh49 and MGC108282. Antibodies to this protein are good markers of nuclei. The [HGNC](#) name for this protein is [SF3B4](#).

We are [OEM suppliers](#) of this antibody- in other words we manufactured it, characterized it and generated the data presented on this page. This antibody is available from several other vendors, but we can supply it more cheaply and we can provide you with more detailed information on the properties of the antibody.



Left: blots of HeLa cell crude extract stained with MCA-3A1. SF3B4 runs with an apparent SDS-PAGE molecular weight 49kDa. **Right:** Human HeLa cells stained with MCA-3A1 (red), chicken antibody to vimentin [CPCA-Vim](#) (green) and DNA (blue, stained with DAPI). The MCA-3A1 antibody reveals strong granular nuclear staining which is a little different from the DNA stain and presumably reflects spliceosomal complexes. The vimentin antibody stains the cytoplasmic intermediate filament network of the HeLa cells.

Antibody characteristics: MCA-3A1 is a mouse IgG2b class antibody with a κ light chain, and was raised against full length recombinant human SF3B4 expressed in and purified from *E. coli*. MCA-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.

Suggestions for use: The antibody is affinity purified antibody diluted to 1mg/mL in phosphate buffered saline. The antibody solution can be used at dilutions of at least 1:1,000 in immunofluorescence experiments. In western blotting using chemiluminescence it can be used at dilutions of 1:1,000 or lower. Antibody preparation contains 10mM sodium azide preservative (Link to <http://www.encorbio.com/MSDS/azide.htm> for Material Safety Data Sheet). Avoid repeated freezing and thawing, store at 4°C or -20°C.

Limitations: This product is for research use only and is not approved for use in humans or in clinical diagnosis.

References:

Champion-Arnaud P, Reed R. The prespliceosome components SAP 49 and SAP 145 interact in a complex implicated in tethering U2 snRNP to the branch site. *Genes Dev.* 8:1974-83 (1994).

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