Anti-SF3A1 Antibody

HA500235

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 89 kDa

Description: This gene encodes subunit 1 of the splicing factor 3a protein complex. The splicing factor 3a heterotrimer includes subunits 1, 2 and 3 and is necessary for the in vitro conversion of 15S U2 snRNP into an active 17S particle that performs pre-mRNA splicing. Subunit 1 belongs to the SURP protein family; named for the SURP (also called SWAP or Suppressor-of-White-APricot) motifs that are thought to mediate RNA binding. Subunit 1 has tandemly repeated SURP motifs in its amino-terminal half while its carboxy-terminal half contains a proline-rich region and a ubiquitin-like domain. Binding studies with truncated subunit 1 derivatives demonstrated that the two SURP motifs are necessary for binding to subunit 3 while contacts with subunit 2 may occur through sequences carboxy-terminal to the SURP motifs. Alternative splicing results in multiple transcript variants encoding different isoforms.

Immunogen: Synthetic peptide within human SF3A1 aa 50-100 / 793.

Positive control: Jurkat cell lysate, HeLa cell lysate, A549 cell lysate, K-562 cell lysate, mouse brain tissue lysate, rat lung tissue lysate, human colon carcinoma tissue, mouse brain tissue, mouse lung tissue.

Subcellular location: Nucleus, Nucleus speckle.

Database links: SwissProt: Q15459 Human | Q8K4Z5 Mouse
Entrez Gene: 305479 Rat

Recommended Dilutions:

WB	1:500-1:1,000
IHC-P	1:50-1:200

Storage Buffer: 1*TBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

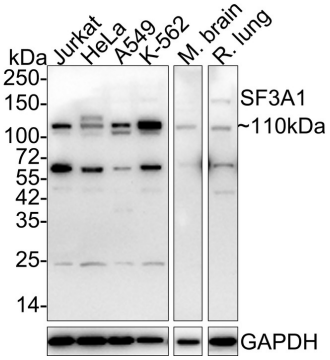

Fig1: Western blot analysis of SF3A1 on different lysates with Rabbit anti-SF3A1 antibody (HA500235) at 1/1,000 dilution.

Lane 1: Jurkat cell lysate (15 µg/Lane)
Lane 2: HeLa cell lysate (15 µg/Lane)
Lane 3: A549 cell lysate (15 µg/Lane)
Lane 4: K-562 cell lysate (15 µg/Lane)
Lane 5: Mouse brain tissue lysate (30 µg/Lane)
Lane 6: Rat lung tissue lysate (30 µg/Lane)

Predicted band size: 89 kDa
Observed band size: 110 kDa

Exposure time: 2 minutes 48 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA500235) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

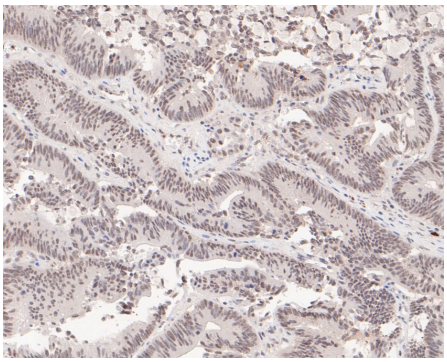

Fig2: Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue with Rabbit anti-SF3A1 antibody (HA500235) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA500235) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

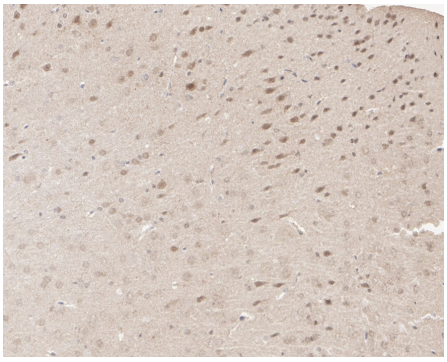

Fig3: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-SF3A1 antibody (HA500235) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA500235) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

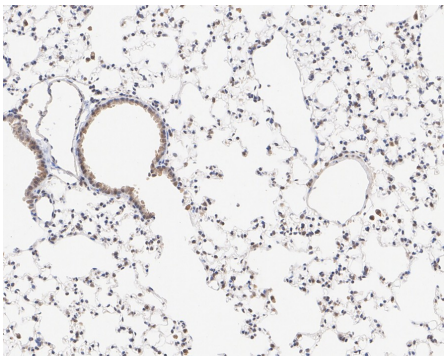

Fig4: Immunohistochemical analysis of paraffin-embedded mouse lung tissue with Rabbit anti-SF3A1 antibody (HA500235) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA500235) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Martelly W. et. al. Identification of a noncanonical RNA binding domain in the U2 snRNP protein SF3A1. RNA. 2019 Nov
2. Tian J. et. al. SF3A1 and pancreatic cancer: new evidence for the association of the spliceosome and cancer. Oncotarget. 2015 Nov