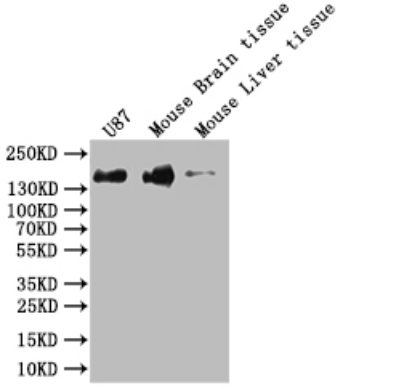
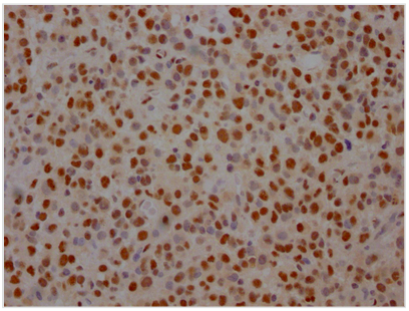
SF3B1 Recombinant Monoclonal Antibody

Product Code	CSB-RA102629A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	O75533
Immunogen	A synthesized peptide derived from human SF3B1
Species Reactivity	Human, Mouse
Tested Applications	ELISA, WB, IHC, IF; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IF:1:20-1:200
Relevance	Subunit of the splicing factor SF3B required for 'A' complex assembly formed by the stable binding of U2 snRNP to the branchpoint sequence (BPS) in pre-mRNA. Sequence independent binding of SF3A/SF3B complex 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. Belongs also to the minor U12-dependent spliceosome, which is involved in the splicing of rare class of nuclear pre-mRNA intron.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling
Gene Names	SF3B1
Clone No.	6C7

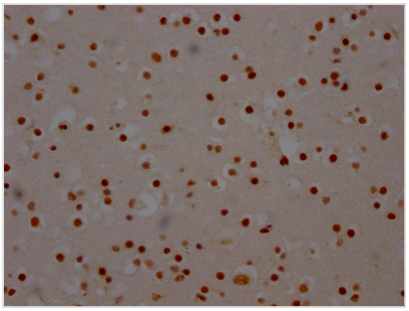
Image



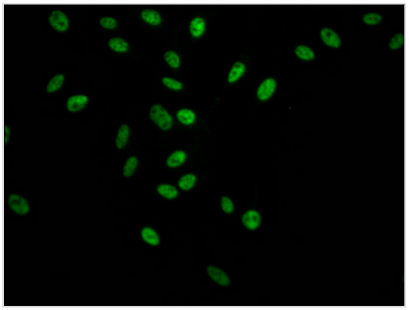
Western Blot
Positive WB detected in: Hela whole cell lysate, K562 whole cell lysate, U-87 whole cell lysate, Mouse Brain whole cell lysate
All lanes: SF3B1 antibody at 1:1000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 146, 17 kDa
Observed band size: 130 kDa



IHC image of CSB-RA102629A0HU diluted at 1:100 and staining in paraffin-embedded human glioma cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



IHC image of CSB-RA102629A0HU diluted at 1:100 and staining in paraffin-embedded human brain tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



Immunofluorescence staining of Hela Cells with CSB-RA102629A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4?. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

The production process of the SF3B1 recombinant monoclonal antibody involves four steps. Firstly, the SF3B1 monoclonal antibody gene is sequenced and then cloned into a plasmid vector. Subsequently, the recombinant vector is introduced into a host cell line, and the SF3B1 recombinant monoclonal antibody is purified from the cell culture supernatant using affinity chromatography. The SF3B1 monoclonal antibody is derived from SF3B1 antibody-producing hybridomas, and during its production, a synthesized peptide derived from human SF3B1 serves as the immunogen. This SF3B1 recombinant monoclonal antibody is recommended for use in detecting human and mouse SF3B1 proteins in ELISA, WB, IHC, and IF applications.

The SF3B1 protein is a component of the spliceosome, a large RNA-protein complex that is responsible for splicing pre-mRNA to generate mature mRNA. As part of the U2 snRNP (small nuclear ribonucleoprotein particle), SF3B1 interacts with pre-mRNA and other splicing factors to catalyze the removal of introns and ligation of exons. Specifically, SF3B1 plays a role in the recognition of the 3' splice site during spliceosome assembly and is involved in the transition from the prespliceosome to the activated spliceosome. Mutations in SF3B1 have

been associated with various cancers and have been shown to affect alternative splicing patterns, leading to altered gene expression and oncogenic transformation.