10320 Camino Santa Fe, Suite G
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Anti-splicing factor 1 Antibody Picoband™ (monoclonal, 2F5D10)

Catalog # ABO15102

Specification

Anti-splicing factor 1 Antibody Picoband™ (monoclonal, 2F5D10) - Product Information

Application	**WB, IHC, IF, ICC, FC**
Primary Accession	Q15637
Host	**Mouse**
Isotype	**Mouse IgG2a**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-splicing factor 1 Antibody Picoband™ (monoclonal, 2F5D10) . Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.

Reconstitution
Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Anti-splicing factor 1 Antibody Picoband™ (monoclonal, 2F5D10) - Additional Information

Gene ID 7536

Other Names
Splicing factor 1, Mammalian branch point-binding protein, BBP, mBBP, Transcription factor ZFM1, Zinc finger gene in MEN1 locus, Zinc finger protein 162, SF1, ZFM1, ZNF162

Calculated MW
68 kDa KDa

Application Details
Western blot, 0.25-0.5 µg/ml, Human, Mouse, Rat
 Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/ml, Human, Mouse, Rat
 Immunocytochemistry/Immunofluorescence, 5 µg/ml, Human
 Flow Cytometry, 1-3 µg/1x10^6 cells, Human, Mouse, Rat

Contents
Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.

Immunogen
E. coli-derived human splicing factor 1 recombinant protein (Position: R160-Q266).

Purification
Immunogen affinity purified.

Storage	**At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.**

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Anti-splicing factor 1 Antibody Picoband™ (monoclonal, 2F5D10) - Protein Information

Name SF1

Synonyms ZFM1, ZNF162

Function
Necessary for the ATP-dependent first step of spliceosome assembly. Binds to the intron branch point sequence (BPS) 5'-UACUAAC-3' of the pre-mRNA. May act as transcription repressor.

Cellular Location
Nucleus.

Tissue Location
Detected in lung, ovary, adrenal gland, colon, kidney, muscle, pancreas, thyroid, placenta, brain, liver and heart

Anti-splicing factor 1 Antibody Picoband™ (monoclonal, 2F5D10) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-splicing factor 1 Antibody Picoband™ (monoclonal, 2F5D10) - Images

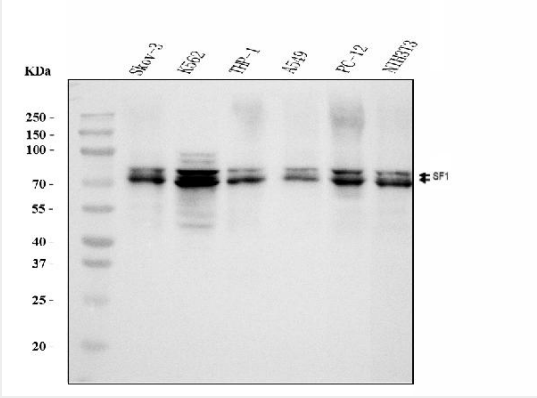

Figure 1. Western blot analysis of splicing factor 1 using anti-splicing factor 1 antibody (M01009-2).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human SKOV-3 whole cell lysates,
Lane 2: human K562 whole cell lysates,

Lane 3: human THP-1 whole cell lysates,
Lane 4: human A549 whole cell lysates,
Lane 5: rat PC-12 whole cell lysates,
Lane 6: mouse NIH/3T3 whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-splicing factor 1 antigen affinity purified monoclonal antibody (Catalog # M01009-2) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for splicing factor 1 at approximately 68 kDa. The expected band size for splicing factor 1 is at 68 kDa.

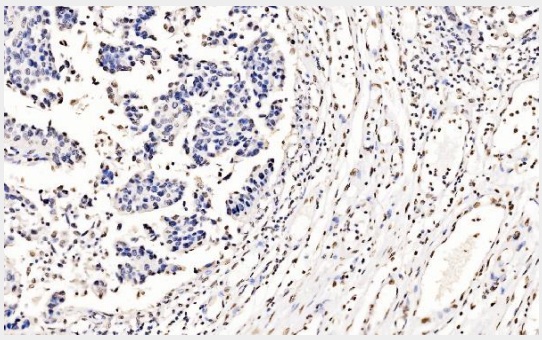

Figure 2. IHC analysis of splicing factor 1 using anti-splicing factor 1 antibody (M01009-2).
splicing factor 1 was detected in a paraffin-embedded section of human bladder cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-splicing factor 1 Antibody (M01009-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

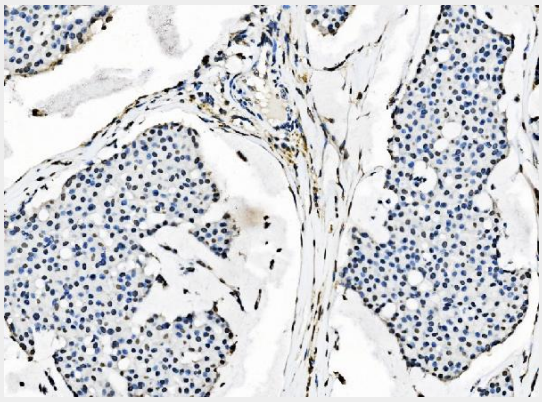

Figure 3. IHC analysis of splicing factor 1 using anti-splicing factor 1 antibody (M01009-2).
splicing factor 1 was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-splicing factor 1 Antibody (M01009-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

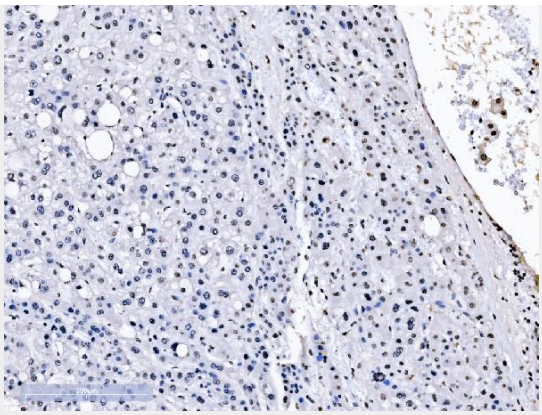

Figure 4. IHC analysis of splicing factor 1 using anti-splicing factor 1 antibody (M01009-2).
splicing factor 1 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-splicing factor 1 Antibody (M01009-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

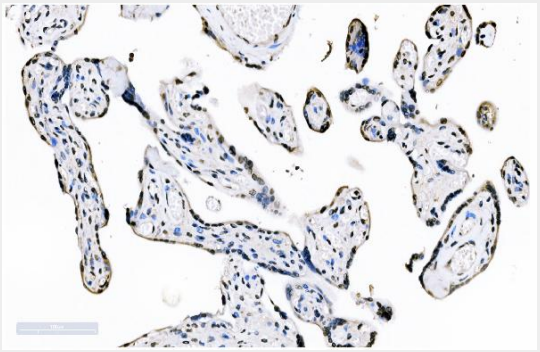

Figure 5. IHC analysis of splicing factor 1 using anti-splicing factor 1 antibody (M01009-2).
splicing factor 1 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-splicing factor 1 Antibody (M01009-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

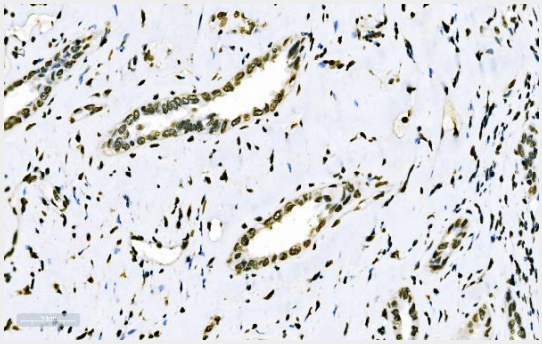

Figure 6. IHC analysis of splicing factor 1 using anti-splicing factor 1 antibody (M01009-2).
splicing factor 1 was detected in a paraffin-embedded section of human squamous metaplasia of the renal pelvis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0,

epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-splicing factor 1 Antibody (M01009-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

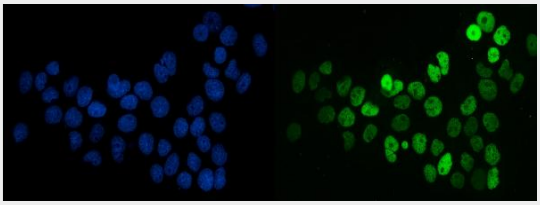

Figure 7. IF analysis of splicing factor 1 using anti-splicing factor 1 antibody (M01009-2).
splicing factor 1 was detected in an immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 µg/mL mouse anti-splicing factor 1 Antibody (M01009-2) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

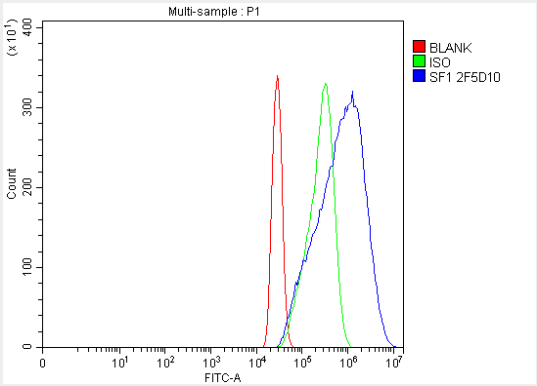

Figure 8. Flow Cytometry analysis of A431 cells using anti-splicing factor 1 antibody (M01009-2).
Overlay histogram showing A431 cells stained with M01009-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-splicing factor 1 Antibody (M01009-2, 1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

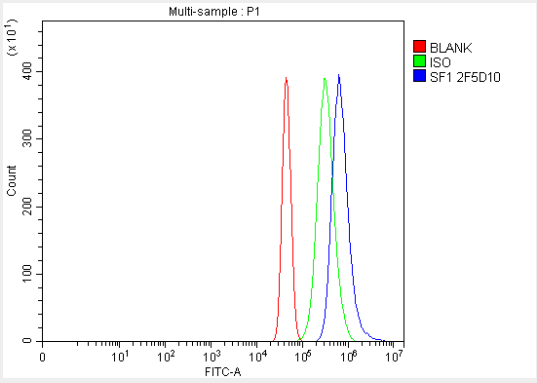

Figure 9. Flow Cytometry analysis of Neuro-2a cells using anti-splicing factor 1 antibody (M01009-2).

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Overlay histogram showing Neuro-2a cells stained with M01009-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-splicing factor 1 Antibody (M01009-2, 1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

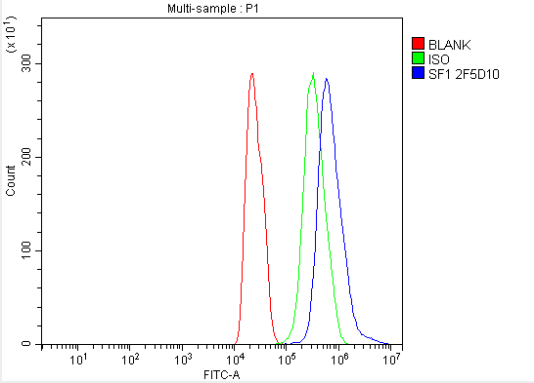

Figure 10. Flow Cytometry analysis of C6 cells using anti-splicing factor 1 antibody (M01009-2). Overlay histogram showing C6 cells stained with M01009-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-splicing factor 1 Antibody (M01009-2, 1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

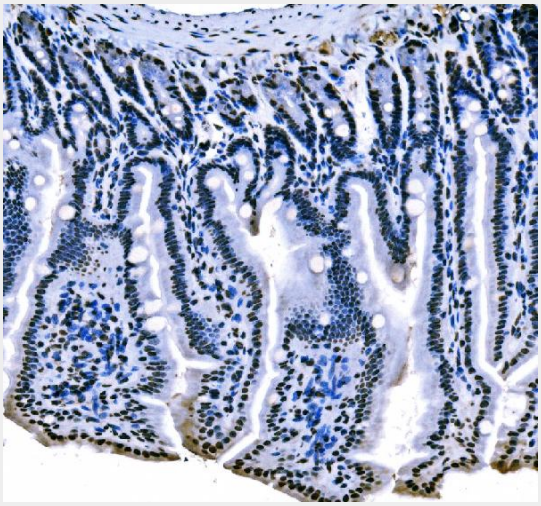

Figure 11. IHC analysis of splicing factor 1 using anti-splicing factor 1 antibody (M01009-2). splicing factor 1 was detected in a paraffin-embedded section of mouse colon tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-splicing factor 1 Antibody (M01009-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

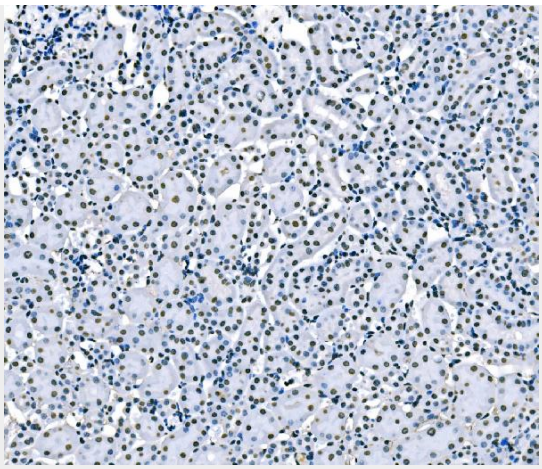

Figure 12. IHC analysis of splicing factor 1 using anti-splicing factor 1 antibody (M01009-2). splicing factor 1 was detected in a paraffin-embedded section of mouse kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-splicing factor 1 Antibody (M01009-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

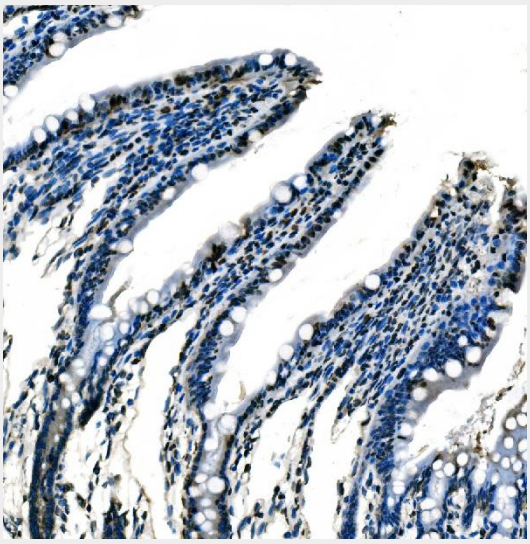

Figure 13. IHC analysis of splicing factor 1 using anti-splicing factor 1 antibody (M01009-2). splicing factor 1 was detected in a paraffin-embedded section of rat colon tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-splicing factor 1 Antibody (M01009-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

Anti-splicing factor 1 Antibody Picoband™ (monoclonal, 2F5D10) - Background

Splicing factor 1 also known as zinc finger protein 162 (ZFM162) is a protein that in humans is encoded by the SF1 gene. This gene encodes a nuclear pre-mRNA splicing factor. The encoded protein specifically recognizes the intron branch point sequence at the 3' splice site, together with the large subunit of U2 auxiliary factor (U2AF), and is required for the early stages of spliceosome assembly. It also plays a role in nuclear pre-mRNA retention and transcriptional repression. The

encoded protein contains an N-terminal U2AF ligand motif, a central hnRNP K homology motif and quaking 2 region which bind a key branch-site adenosine within the branch point sequence, a zinc knuckles domain, and a C-terminal proline-rich domain. Alternative splicing results in multiple transcript variants.