

Anti-Musashi 1/Msi1 Antibody (monoclonal, 2B9)
Catalog # ABO14917**Specification****Anti-Musashi 1/Msi1 Antibody (monoclonal, 2B9) - Product Information**

Application	WB, IHC, IF, ICC
Primary Accession	O43347
Host	Mouse
Isotype	Mouse IgG2b
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Lyophilized

Description

Anti-Musashi 1/Msi1 Antibody (monoclonal, 2B9) . Tested in IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Musashi 1/Msi1 Antibody (monoclonal, 2B9) - Additional Information

Gene ID 4440

Other Names

RNA-binding protein Musashi homolog 1, Musashi-1, MSI1

Calculated MW

39 kDa KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
 Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat
 Immunocytochemistry/Immunofluorescence, 2 µg/ml, Human

Subcellular Localization

Cytoplasm. Nucleus.

Tissue Specificity

Detected in fetal kidney, brain, liver and lung, and in adult brain and pancreas. Detected in hepatoma cell lines.

Protein Name

RNA-binding protein Musashi homolog 1

Contents

Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human Musashi 1/Msi1,

identical to the related mouse and rat sequences.

Storage

Store 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 freeze-thaw cycles.

Anti-Musashi 1/Msi1 Antibody (monoclonal, 2B9) - Protein Information**Name** MSI1**Function**

RNA binding protein that regulates the expression of target mRNAs at the translation level. Regulates expression of the NOTCH1 antagonist NUMB. Binds RNA containing the sequence 5'-GUUAGUUAGUUAGUU- 3' and other sequences containing the pattern 5'-[GA]U(1-3)AGU-3'. May play a role in the proliferation and maintenance of stem cells in the central nervous system (By similarity).

Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:Q61474}. Nucleus {ECO:0000250|UniProtKB:Q61474}

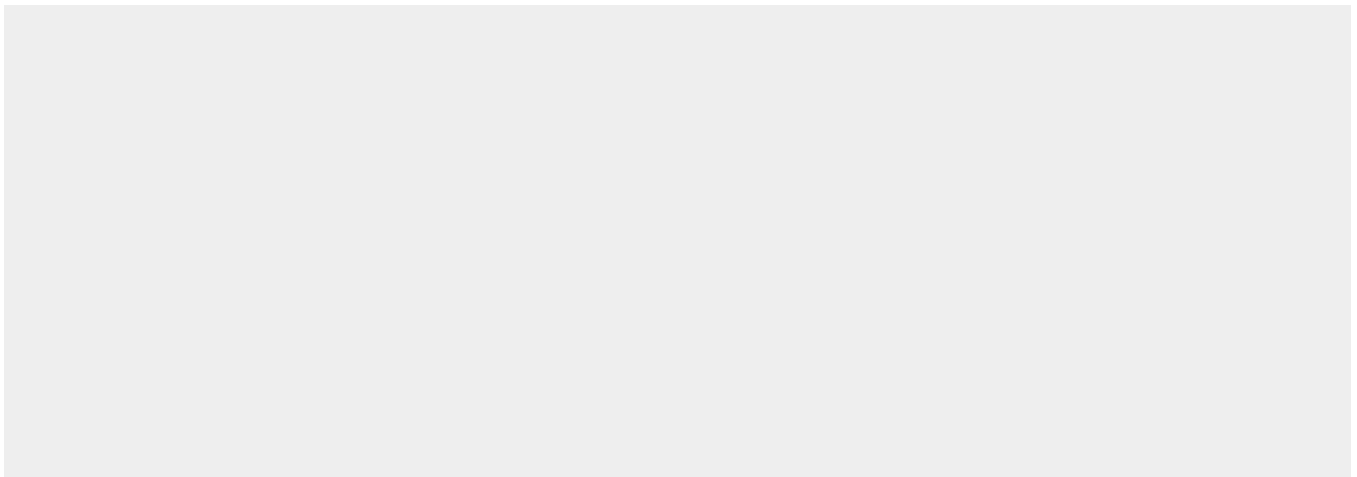
Tissue Location

Detected in fetal kidney, brain, liver and lung, and in adult brain and pancreas. Detected in hepatoma cell lines

Anti-Musashi 1/Msi1 Antibody (monoclonal, 2B9) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Musashi 1/Msi1 Antibody (monoclonal, 2B9) - Images

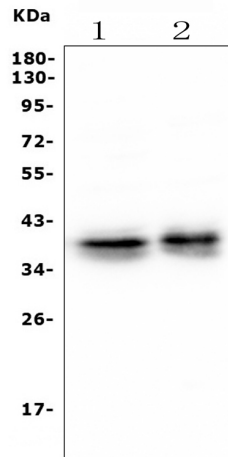


Figure 1. Western blot analysis of MSI using anti-MSI antibody (M05052-1).

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 50ug of sample under reducing conditions.

Lane 1: human A549 tissue lysates,

Lane 2: human PC-3 whole cell lysates,

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-MSI antigen affinity purified polyclonal antibody (Catalog # M05052-1) 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 MSI at approximately 39KD. The expected band size for MSI is at 39KD.

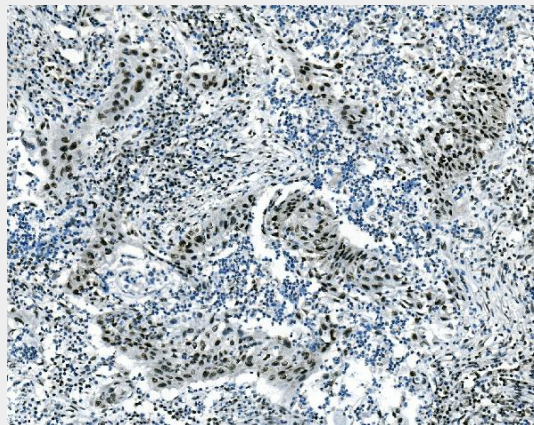


Figure 2. IHC analysis of MSI using anti-MSI antibody (M05052-1).

MSI was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1g/ml mouse anti-MSI Antibody (M05052-1) overnight at 4C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

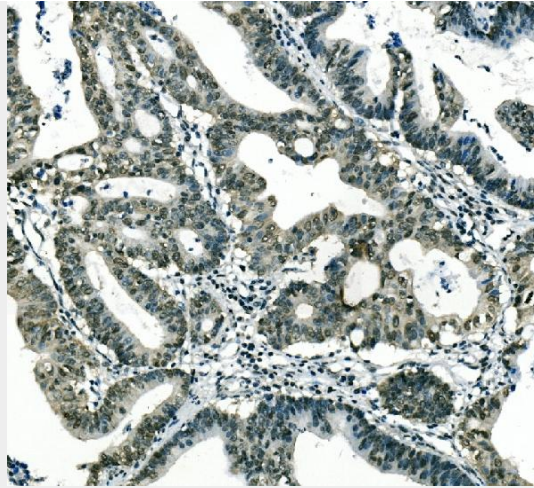


Figure 3 IHC analysis of MSI using anti-MSI antibody (M05052-1).

MSI was detected in paraffin-embedded section of human rectum cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1g/ml mouse anti-MSI Antibody (M05052-1) overnight at 4C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

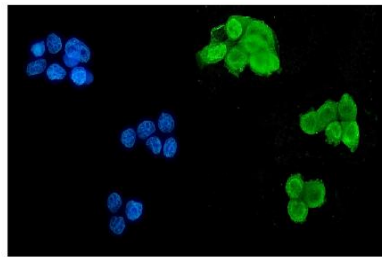


Figure 4. IF analysis of MSI using anti-MSI antibody (M05052-1).

MSI was detected in immunocytochemical section of MCF7 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 2 µg/mL mouse anti-MSI Antibody (M05052-1) 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.

Anti-Musashi 1/Msi1 Antibody (monoclonal, 2B9) - Background

RNA-binding protein Musashi homolog 1 is a protein that in humans is encoded by the MSI1 gene. This gene encodes a protein containing two conserved tandem RNA recognition motifs. Similar proteins in other species function as RNA-binding proteins and play central roles in posttranscriptional gene regulation. Expression of this gene has been correlated with the grade of the malignancy and proliferative activity in gliomas and melanomas. A pseudogene for this gene is located on chromosome 11q13.