

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

Catalog # ABO14917

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.

Additional Information

Gene ID	4440
Other Names	RNA-binding protein Musashi homolog 1, Musashi-1, MSI1
Calculated MW	39125
Application Details	Western blot, 0.1-0.5 μ g/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1 μ g/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 2 μ g/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.
Source	Eukaryota
Protein Name	RNA-binding protein Musashi homolog 1
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Clone Names	Clone: 2B9
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.

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

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.

Images

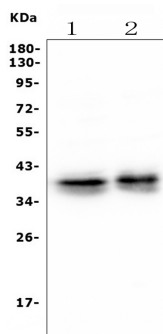
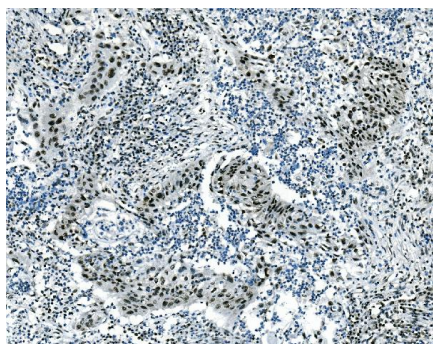


Figure 1. Western blot analysis of MSI using anti-MSI antibody (M05052-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human A549 tissue 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.

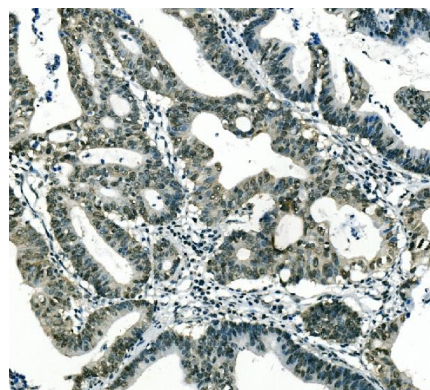


Figure 3 IHC analysis of MSI using anti-MSI antibody (M05052-1).

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.

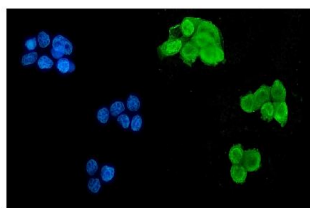


Figure 4. IF analysis of MSI using anti-MSI antibody (M05052-1).

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.

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