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MSI2 Antibody

Catalog # ASC11325

Product Information

Application	WB, IF, ICC, E
Primary Accession	Q96DH6
Other Accession	EAW94506, 20373175
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	35197
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	MSI2 antibody can be used for detection of MSI2 by Western blot at 1 □g/mL. Antibody can also be used for immunocytochemistry starting at 5 □g/mL. For immunofluorescence start at 5 □g/mL.

Additional Information

Gene ID	124540
Other Names	RNA-binding protein Musashi homolog 2, Musashi-2, MSI2
Target/Specificity	MSI2; MSI2 antibody is predicted to not cross-react with MSI1. Multiple isoforms of MSI2 are known to exist.
Reconstitution & Storage	MSI2 antibody can be stored at 4 ℃, stable for one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	MSI2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MSI2
Function	RNA binding protein that regulates the expression of target mRNAs at the translation level. May play a role in the proliferation and maintenance of stem cells in the central nervous system (By similarity).
Cellular Location	Cytoplasm. Note=Associated with polysomes.
Tissue Location	Ubiquitous; detected at low levels.

Background

MSI2 Antibody: Musashi2 (MSI2) is an RNA-binding protein that is highly expressed in precursor cells in the ventricular and subventricular zones of the developing mammalian CNS. Like the related MSI1, MSI2 has been suggested to be involved stem cell production and maintenance. MSI2 is the predominant MSI protein in hematopoietic stem cells, and its knockdown leads to reduced engraftment and depletion in vivo. Expression levels of MSI2 are elevated in myeloid leukemia cells lines, and MSI2 appears to cooperate with BCR-ABL1 to induce an aggressive leukemia; the level of MSI2 directly correlates with decreased survival in patients. MSI2 negatively regulates the asymmetric cell fate determinant NUMB, suggesting that this signaling pathway may provide future targets for future therapies.

References

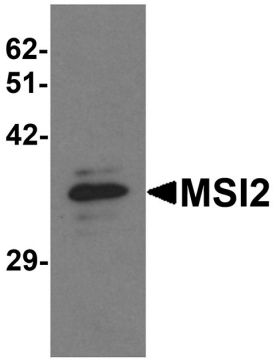
Sakakibara S, Nakamura Y, Stoh H, et al. RNA-binding protein Musashi2: developmentally regulated expression in neuronal precursor cells and subpopulations of neurons in mammalian CNS. J. Neurosci. 2001; 21:8091-107

Kharas MG, Lengner CJ, Al-Shahrour F, et al. Musashi-2 regulates normal hematopoiesis and promotes aggressive myeloid leukemia. Nat. Med. 2010; 16:903-8

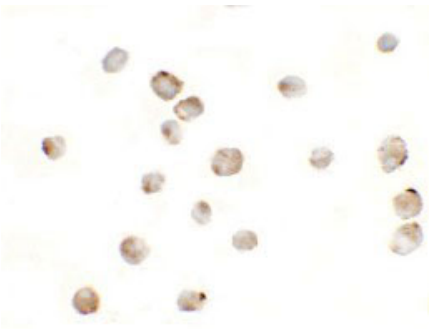
Ito T, Kwon HY, Zimdahl B, et al. Regulation of myeloid leukaemia by the cell-fate determinant Musashi. Nature 2010; 466:765-8.

Griner LN and Reuther GW. Aggressive myeloid leukemia formation is directed by the Musashi2/Numb pathway. Cancer Biol. Ther. 2010; 10:979-82

Images

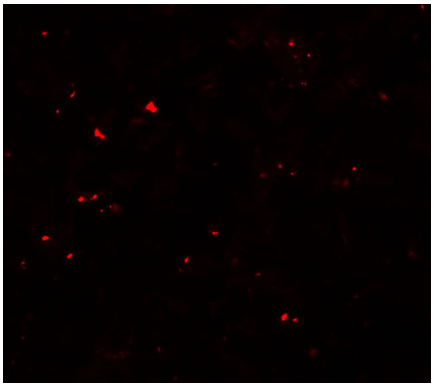


Western blot analysis of MSI2 in EL4 cell lysate with MSI2 antibody at 1 µg/mL.



Immunocytochemistry of MSI2 in EL4 cells with MSI2 antibody at 5 µg/mL.

Immunofluorescence of MSI2 in EL4 cells with MSI2 antibody at 20 µg/mL.



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