Technical Data Sheet

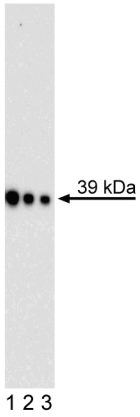
Purified Mouse anti-Human MSI1

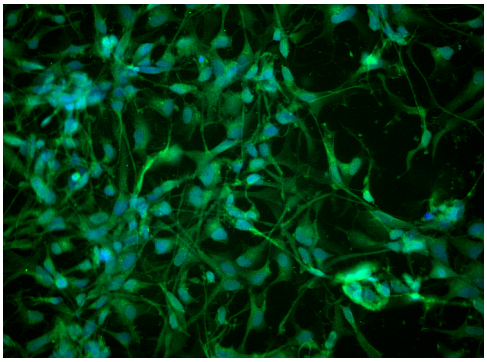
Product Information

Material Number:	**560851**
Alternate Name:	Musashi-1, RNA-binding protein Musashi homolog 1, MSI1H
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	N14-47
Immunogen:	Human MSI1 a.a. 221-311 Recombinant Protein
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human Predicted due to immunogen sequence identity: Rat
Target MW:	39 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The N14-47 monoclonal antibody recognizes RNA-binding protein Musashi homolog 1 (Musashi-1 or MSI1) that represses the translation of particular mRNAs by binding specific RNA sequence motifs. MSI1 contains two RNA-recognition domains at amino acids 20-110 and 109-186. It is expressed in early lineage cells, such as neural stem/progenitor cells, small intestinal stem cells, and mammary stem cells. MSI1 has also been detected in many human cancers, including gliomas, melanomas, colorectal adenomas and adenocarcinomas, suggesting its involvement in cancer development.





Western blot analysis and immunofluorescent staining of MSI1 in neural stem cells (NSC) derived from H9 human embryonic stem cells (WiCell, Madison, WI).
Left Panel: NSC lysate was probed with Purified Mouse anti-Human MSI1 monoclonal antibody at concentrations of 1.0, 0.5, and 0.25 µg/ml (lanes 1, 2, and 3, respectively). MSI1 is identified as a band of 39 kDa.
Right Panel: NSC were fixed with BD Cytofix™ fixation buffer (Cat. No. 554655), permeabilized with 0.1% Triton™-X 100, and stained with Purified Mouse anti-Human MSI1 monoclonal antibody (pseudo-colored green) at 5 µg/mL. The second-step reagent was Alexa Fluor® 488 goat anti-mouse Ig (Life Technologies) and counter-staining was with Hoechst 33342 (pseudo-colored blue). The image was captured on a BD Pathway™ 435 Cell Analyzer and merged using BD Attovision™ software. The staining worked with the cold methanol (BD™ Phosflow Perm Buffer III, Cat. No. 558050) and the Triton X-100 Perm/Wash protocols, but not with BD™ Phosflow Perm/Wash Buffer I (Cat. No. 557885).

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Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Western blot	Routinely Tested
Bioimaging	Tested During Development
Flow cytometry	Tested During Development

Recommended Assay Procedure:

For Bioimaging protocols, please refer to http:http://www.bdbiosciences.com/support/resources/bioimaging/index.jsp.

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554655	Fixation Buffer	100 ml	(none)
353219	BD Falcon™ 96-well Imaging Plate	NA	(none)
558050	Perm Buffer III	125 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Triton is a trademark of the Dow Chemical Company.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Glazer RI, Wang XY, Yuan H, Yin Y. Musashi1: a stem cell marker no longer in search of a function. *Cell Cycle.* 2008; 7(17):2635-2639. (Biology)

Montgomery RK, Breault DT. Small intestinal stem cell markers. *J Anat.* 2008; 213(1):52-58. (Biology)

Okano H, Imai T, Okabe M. Musashi: a translational regulator of cell fate. *J Cell Sci.* 2002; 115:1355-1359. (Biology)