Technical Data Sheet

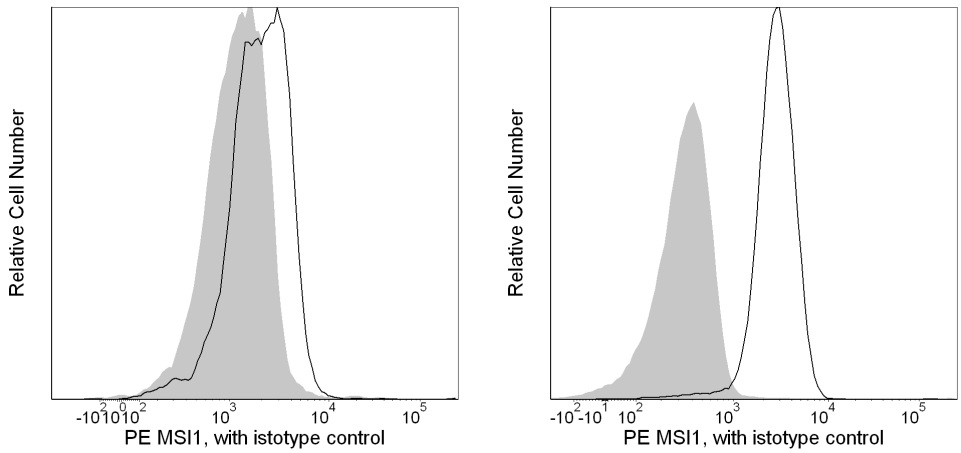
PE Mouse anti-Human MSI1

Product Information

Material Number:	**561468**
Alternate Name:	Musashi-1, RNA-binding protein Musashi homolog 1, MSI1H
Size:	50 tests
Vol. per Test:	5 µl
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
Storage Buffer:	Aqueous buffered solution containing BSA and ≤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.



Analysis of MSI1 staining in H9 human embryonic stem (ES) cells and H9-derived Neural Stem Cells (NSC). *H9 human ES cells (left panel, WiCell, Madison, WI) and H9-derived NSC (right panel) were harvested, fixed in BD Cytofix™ buffer (Cat. No. 554655), permeabilized with BD™ Phosflow Perm buffer III (Cat. No. 558050) and stained with PE Mouse Anti-Human MSI1 antibody (open histograms) or a matching concentration of a PE Mouse IgG1, κ isotype control (shaded histograms, Cat. No. 554680). Use of the BD™ Phosflow Perm/Wash buffer I (Cat. No. 557885) is not recommended. The histograms were derived from gated events based on light scattering characteristics for the H9 cell line (left panel) or NSC (right panel). Flow cytometry was performed on a BD LSR™ II flow cytometry system.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554680	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
554655	Fixation Buffer	100 ml	(none)
558050	Perm Buffer III	125 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)

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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. 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.
6. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

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)

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