

Msi1 (H-45): sc-98845

BACKGROUND

Musashi1 (Msi1) is an RNA-binding protein expressed in neural progenitor cells and neural stem cells. Msi1 is the mammalian homolog of *Drosophila* Musashi. The gene encoding human Msi1 encodes a 362 amino acid protein. In murine embryonic neural progenitor cells, Msi1 localizes to the cytoplasm and is downregulated during differentiation. Msi1 binds to NUMB, which encodes a membrane-associated antagonist of Notch signaling. Msi1 appears to function in the proliferation and maintenance of stem cell populations of the central nervous system. In addition to its usefulness as a marker for neural progenitor cells in normal human brains, Msi1 is also a marker for human gliomas. In rats, Msi1 is expressed in Sertoli cells of the testis and granulosa cells of the ovary.

REFERENCES

1. Good, P., et al. 1998. The human Musashi homolog 1 (MSI1) gene encoding the homologue of Musashi/Nrp-1, a neural RNA-binding protein putatively expressed in CNS stem cells and neural progenitor cells. *Genomics* 52: 382-384.
2. Kaneko, Y., et al. 2000. Musashi1: evolutionarily conserved markers for CNS progenitor cells including neural stem cells. *Dev. Neurosci.* 22: 138-152.

CHROMOSOMAL LOCATION

Genetic locus: MSI1 (human) mapping to 12q24.31; Msi1 (mouse) mapping to 5 F.

SOURCE

Msi1 (H-45) is a rabbit polyclonal antibody raised against amino acids 281-320 mapping near the C-terminus of Msi1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Msi1 (H-45) is recommended for detection of Msi1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Msi1 (H-45) is also recommended for detection of Msi1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Msi1 siRNA (h): sc-106836, Msi1 siRNA (m): sc-149659, Msi1 shRNA Plasmid (h): sc-106836-SH, Msi1 shRNA Plasmid (m): sc-149659-SH, Msi1 shRNA (h) Lentiviral Particles: sc-106836-V and Msi1 shRNA (m) Lentiviral Particles: sc-149659-V.

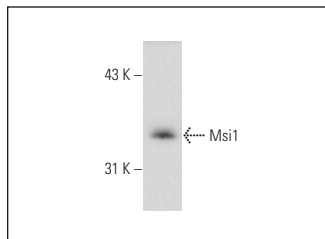
Molecular Weight of Msi1: 39 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Msi1 (H-45): sc-98845. Western blot analysis of Msi1 expression in IMR-32 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Li, D., et al. 2011. Msi-1 is a predictor of survival and a novel therapeutic target in colon cancer. *Ann. Surg. Oncol.* 18: 2074-2083.
2. Yamamoto, T., et al. 2012. Post-transcriptional regulation of fukutin in an astrocytoma cell line. *Int. J. Exp. Pathol.* 93: 46-55.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Msi1 (69-Q): sc-135721**, our highly recommended monoclonal alternative to Msi1 (H-45).