

MIST1 (H-50): sc-98771

BACKGROUND

MIST1 (muscle, intestine and stomach expression 1), also known as bHLHB8 (basic helix-loop-helix domain containing, class B, 8), is a 189 amino acid nuclear protein expressed in liver, brain, skeletal muscle and spleen. MIST1 contains a basic helix-loop-helix (bHLH) domain and belongs to the bHLH family of transcription factors. Members of this family bind to the E-box motifs present in the promoter or enhancer regions of a variety of developmentally regulated genes and function as either transcriptional activators or transcriptional repressors. MIST1 is capable of binding to E-box motifs as a homodimer or a heterodimer with E-proteins (E12 and E47) and is believed to play a role regulating the transcriptional activity of MyoD, a protein involved in the regulation of muscle cell development. More specifically, MIST1 functions as a repressor of MyoD activity, ensuring that myoblast populations do not differentiate. In addition, MIST1 is expressed in mammary epithelial cells and is essential for the regulation of mammary gland development.

REFERENCES

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- Tran, T., et al. 2007. The bHLH domain of MIST1 is sufficient to activate gene transcription. *Gene Expr.* 13: 241-253.
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CHROMOSOMAL LOCATION

Genetic locus: BHLHB8 (human) mapping to 7q21.3; Bhlhb8 (mouse) mapping to 5 G2.

RESEARCH USE

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

SOURCE

MIST1 (H-50) is a rabbit polyclonal antibody raised against amino acids 63-102 mapping within an internal region of MIST1 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

MIST1 (H-50) is recommended for detection of MIST1 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).

MIST1 (H-50) is also recommended for detection of MIST1 in additional species, including equine and canine.

Suitable for use as control antibody for MIST1 siRNA (h): sc-89777, MIST1 siRNA (m): sc-108000, MIST1 shRNA Plasmid (h): sc-89777-SH, MIST1 shRNA Plasmid (m): sc-108000-SH, MIST1 shRNA (h) Lentiviral Particles: sc-89777-V and MIST1 shRNA (m) Lentiviral Particles: sc-108000-V.

Molecular Weight of MIST1: 22 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285.

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.

STORAGE

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



Try **MIST1 (A-6): sc-166181** or **MIST1 (1H1): sc-80983**, our highly recommended monoclonal alternatives to MIST1 (H-50).