SANTA CRUZ BIOTECHNOLOGY, INC.

MDFI (D-16): sc-168566

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

MDFI (MyoD family inhibitor), also known as I-MF or I-mfa, is a 246 amino acid protein that localizes to both the nucleus and the cytoplasm and interacts with Axin and LEF-1. Functioning as a transcription factor, MDFI negatively regulates the transactivation activity of MyoD proteins, thus repressing myogenesis. More specifically, MDFI associates with MyoD proteins and blocks their nuclear localization signals, effectively sequestering MyoD family members in the cytoplasm and preventing them from binding to DNA. The gene encoding MDFI maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MDFI (human) mapping to 6p21.1; Mdfi (mouse) mapping to 17 C.

SOURCE

MDFI (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MDFI 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-168566 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-168566 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MDFI (D-16) is recommended for detection of MDFI of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

MDFI (D-16) is also recommended for detection of MDFI in additional species, including bovine.

Suitable for use as control antibody for MDFI siRNA (h): sc-95333, Mdfi siRNA (m): sc-149334, MDFI shRNA Plasmid (h): sc-95333-SH, Mdfi shRNA Plasmid (m): sc-149334-SH, MDFI shRNA (h) Lentiviral Particles: sc-95333-V and Mdfi shRNA (m) Lentiviral Particles: sc-149334-V.

MDFI (D-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of MDFI: 25 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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.

RESEARCH USE

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