



MDFIC (m): 293T Lysate: sc-178926

BACKGROUND

MDFIC (MyoD family inhibitor domain-containing protein), also known as HIC, is a 355 amino acid protein that exists as 2 alternatively spliced isoforms, known as p40 and p32, which localize predominately to the nucleolus and cytoplasm, respectively. Expressed in prostate, thymus, spleen and small intestine, MDFIC functions to modulate the expression of viral genomes, specifically down-regulating the transcription of HIV-1 and up-regulating the expression of HTLV-1 (T-cell leukemia virus type I). Additionally, MDFIC is able to adjust the amount of β -catenin within the cell and may also function to regulate the Wnt and JNK signaling pathways. The gene encoding MDFIC maps to human chromosome 7q31.1, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to osteogenesis imperfecta, Williams-Beuren syndrome, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

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3. Kusano, S., et al. 2002. I-mfa domain proteins interact with Axin and affect its regulation of the Wnt and c-Jun N-terminal kinase signaling pathways. *Mol. Cell. Biol.* 22: 6393-6405.
4. Young, T.M., et al. 2003. The human I-mfa domain-containing protein, HIC, interacts with cyclin T1 and modulates P-TEFb-dependent transcription. *Mol. Cell. Biol.* 23: 6373-6384.
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6. Wang, Q., et al. 2007. Developmental regulators containing the I-mfa domain interact with T cyclins and Tat and modulate transcription. *J. Mol. Biol.* 367: 630-646.

CHROMOSOMAL LOCATION

Genetic locus: Mdfic (mouse) mapping to 6 A1.

PRODUCT

MDFIC (m): 293T Lysate represents a lysate of mouse MDFIC transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

MDFIC (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive MDFIC antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PROTOCOLS

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