

MRTF-A (G-8): sc-390324



The Power to Question

BACKGROUND

Serum response factor (SRF) is a transcription factor that binds the serum response element (SRE), a sequence that mediates the transient response of many cellular genes to growth stimulation. SRF regulates the transient response of several muscle genes in response to growth factors and recruits accessory myogenic factors to activate these muscle genes. SRF is required for the formation of vertebrate mesoderm leading to the origin of the cardiovascular system. Myocardin, in association with SRF in cardiac muscle cells, activates cardiac muscle promoters. Myocardin-related transcription factor A (MRTF-A) interacts with SRF and stimulates its transcriptional activity.

CHROMOSOMAL LOCATION

Genetic locus: MKL1 (human) mapping to 22q13.1; Mkl1 (mouse) mapping to 15 E1.

SOURCE

MRTF-A (G-8) is a mouse monoclonal antibody raised against amino acids 761-900 mapping near the C-terminus of MRTF-A of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MRTF-A (G-8) is available conjugated to agarose (sc-390324 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390324 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390324 PE), fluorescein (sc-390324 FITC), Alexa Fluor® 488 (sc-390324 AF488), Alexa Fluor® 546 (sc-390324 AF546), Alexa Fluor® 594 (sc-390324 AF594) or Alexa Fluor® 647 (sc-390324 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390324 AF680) or Alexa Fluor® 790 (sc-390324 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

MRTF-A (G-8) is recommended for detection of MRTF-A of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for MRTF-A siRNA (h): sc-43944, MRTF-A siRNA (m): sc-149641, MRTF-A shRNA Plasmid (h): sc-43944-SH, MRTF-A shRNA Plasmid (m): sc-149641-SH, MRTF-A shRNA (h) Lentiviral Particles: sc-43944-V and MRTF-A shRNA (m) Lentiviral Particles: sc-149641-V.

Molecular Weight of MRTF-A: 160 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HUV-EC-C whole cell lysate: sc-364180 or HeLa whole cell lysate: sc-2200.

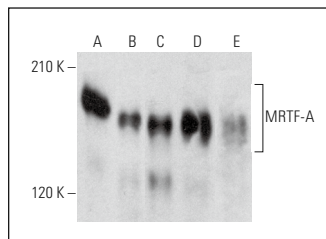
STORAGE

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

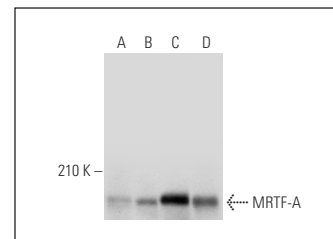
RESEARCH USE

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

DATA



MRTF-A (G-8): sc-390324. Western blot analysis of MRTF-A expression in HeLa (A), Hep G2 (B), HUV-EC-C (C) and NIH/3T3 (D) whole cell lysates and rat brain tissue extract (E).



MRTF-A (G-8): sc-390324. Western blot analysis of MRTF-A expression in NIH/3T3 (A) and A549 (B) nuclear extracts and HeLa (C) and NIH/3T3 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

- Gegenfurtner, F.A., et al. 2018. Transcriptional effects of Actin-binding compounds: the cytoplasm sets the tone. *Cell. Mol. Life Sci.* 75: 4539-4555.
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- Redchuk, T.A., et al. 2020. Optogenetic regulation of endogenous proteins. *Nat. Commun.* 11: 605.
- Todorovski, V., et al. 2020. Matrix stiffness-sensitive long-non coding RNA NEAT1 seeded paraspeckles in cancer cells. *Mol. Biol. Cell* 31: 1654-1662.
- Hoffman, L.M., et al. 2020. Mechanical stress triggers nuclear remodeling and the formation of transmembrane Actin nuclear lines with associated nuclear pore complexes. *Mol. Biol. Cell* 31: 1774-1787.
- Mei, Y., et al. 2020. Diaphanous-related formin mDia2 regulates β2 Integrins to control hematopoietic stem and progenitor cell engraftment. *Nat. Commun.* 11: 3172.
- Taskinen, M.E., et al. 2020. MASTL promotes cell contractility and motility through kinase-independent signaling. *J. Cell Biol.* 219: e201906204.
- Turner, R.J., et al. 2020. A whole genome-wide arrayed CRISPR screen in primary organ fibroblasts to identify regulators of kidney fibrosis. *SLAS Discov.* 25: 591-604.
- Kepser, L.J., et al. 2021. Cyclase-associated protein 2 (CAP2) controls MRTF-A localization and SRF activity in mouse embryonic fibroblasts. *Sci. Rep.* 11: 4789.
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PROTOCOLS

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

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