**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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

MRTF-A (G-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 905-931 at the C-terminus of MRTF-A of human origin.

**PRODUCT**

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MRTF-A (G-7) is available conjugated to Alexa Fluor® 488 (sc-398675 AF488), 200 µg/ml, for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-398675 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**STORAGE**

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

**APPLICATIONS**

MRTF-A (G-7) 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).


Molecular Weight of MRTF-A: 160 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa nuclear extract: sc-2120 or HEK293 whole cell lysate: sc-45136.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

MRTF-A (G-7): sc-398675. Western blot analysis of MRTF-A expression in Hep G2 (A), HUVEC-C (B), HUV-EC-C (C) and CCRF-CEM (D) whole cell lysates and HeLa nuclear extract (E).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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