

Mts1 (C-13): sc-19949

BACKGROUND

The Mts1 gene encodes a small acidic Ca²⁺-binding protein, Mts1 (also designated S100A4, calvasculin or metastasin). Mts1 belongs to the S100 family of small Ca²⁺-binding proteins and is expressed in a cell-specific manner. Mts1 protein is involved in tumor progression and metastasis, and also has a significant stimulatory effect on angiogenesis. The level of Mts1 protein in serum increases with aging, suggesting that Mts1 may play a role in the induction of tumor progression via stimulation of angiogenesis. In addition, Mts1 cooperates with p53 in apoptosis induction by binding to the C-terminal regulatory domain of p53 to inhibit the DNA binding activity of p53. The ability of Mts1 to enhance p53-dependent apoptosis may accelerate the loss of p53 function in tumors. Thus, Mts1 can contribute to the development of a more aggressive phenotype during tumor progression.

CHROMOSOMAL LOCATION

Genetic locus: S100A4 (human) mapping to 1q21.3; S100a4 (mouse) mapping to 3 F1.

SOURCE

Mts1 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Mts1 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.

Blocking peptide available for competition studies, sc-19949 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Mts1 (C-13) is recommended for detection of Mts1 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).

Mts1 (C-13) is also recommended for detection of Mts1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Mts1 siRNA (h): sc-106781, Mts1 siRNA (m): sc-149694, Mts1 shRNA Plasmid (h): sc-106781-SH, Mts1 shRNA Plasmid (m): sc-149694-SH, Mts1 shRNA (h) Lentiviral Particles: sc-106781-V and Mts1 shRNA (m) Lentiviral Particles: sc-149694-V.

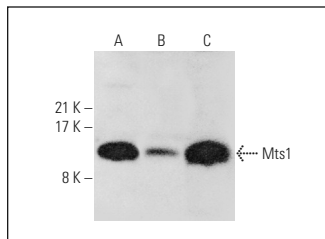
Molecular Weight of Mts1: 11 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or Mts1 (h): 293T Lysate: sc171741.

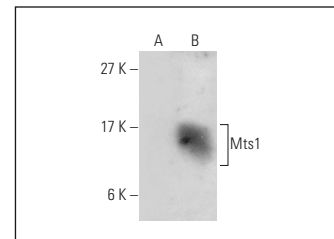
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Mts1 (C-13): sc-19949. Western blot analysis of Mts1 expression in HeLa (A), NIH/3T3 (B) and HEK293 (C) whole cell lysates.



Mts1 (C-13): sc-19949. Western blot analysis of Mts1 expression in non-transfected: sc-117752 (A) and human Mts1 transfected: sc-171741 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Wehder, L., et al. 2009. Annexin A5 is involved in migration and invasion of oral carcinoma. *Cell Cycle* 8: 1552-1558.

RESEARCH USE

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

PROTOCOLS

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



Try **Mts1 (A-7): sc-377059** or **Mts1 (X9-7): sc-100784**, our highly recommended monoclonal alternatives to Mts1 (C-13).