SANTA CRUZ BIOTECHNOLOGY, INC.

MSG1 (D-7): sc-393585

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Pigmentation is a highly characteristic and distinguishing feature of differentiated melanocytes. Generally speaking, pigmentation decreases with melanoma progression and/or loss of several other differentiated properties of melanocytes. The gene which encodes the MSG1 protein is expressed at high levels in strongly pigmented melanoma cells, but at low levels in weakly pigmented cells, suggesting that MSG1 may be associated with pigmentation. MSG1, also designated CITED1, localizes to the nucleus and only demonstrates expression in melanocytes and testis. The deduced 193 amino acid human MSG1 protein shares 75% sequence homology with mouse MSG1. The MSG1 protein contains a serine/threonine-rich region, and research indicates that a fusion protein containing MSG1 and a DNA-binding domain activates transcription in mammalian cells, the activation of which is dependent upon the acidic domain of MSG1.

REFERENCES

1. Shioda, T., et al. 1996. MSG1, a novel melanocyte-specific gene, encodes a nuclear protein and is associated with pigmentation. Proc. Natl. Acad. Sci. USA 93: 12298-12303.
2. Watahiki, M.K., et al. 1999. The MSG1 and AXR1 genes of *Arabidopsis* are likely to act independently in growth-curvature responses of hypocotyls. Planta 207: 362-369.
3. Vachtenheim, J. and Novotná, H. 1999. Expression of genes for microphthalmia isoforms, Pax-3 and MSG1, in human melanomas. Cell. Mol. Biol. 45: 1075-1082.
4. Yahata, T., et al. 2000. The MSG1 non-DNA-binding transactivator binds to the p300/CBP coactivators, enhancing their functional link to the Smad transcription factors. J. Biol. Chem. 275: 8825-8834.

CHROMOSOMAL LOCATION

Genetic locus: Cited1 (mouse) mapping to X D.

SOURCE

MSG1 (D-7) is a mouse monoclonal antibody raised against amino acids 1-167 mapping at the N-terminus of MSG1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MSG1 (D-7) is available conjugated to agarose (sc-393585 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393585 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393585 PE), fluorescein (sc-393585 FITC), Alexa Fluor® 488 (sc-393585 AF488), Alexa Fluor® 546 (sc-393585 AF546), Alexa Fluor® 594 (sc-393585 AF594) or Alexa Fluor® 647 (sc-393585 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393585 AF680) or Alexa Fluor® 790 (sc-393585 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

MSG1 (D-7) is recommended for detection of MSG1 of mouse 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 MSG1 siRNA (m): sc-38050, MSG1 shRNA Plasmid (m): sc-38050-SH and MSG1 shRNA (m) Lentiviral Particles: sc-38050-V.

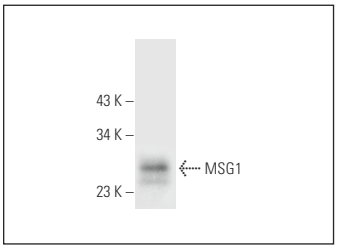
Molecular Weight of MSG1: 27 kDa.

Positive Controls: mouse testis extract: sc-2405.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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 A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



MSG1 (D-7): sc-393585. Western blot analysis of MSG1 expression in mouse testis tissue extract.

SELECT PRODUCT CITATIONS

1. Subramani, A., et al. 2020. Intracellular *Cryptococcus neoformans* disrupts the transcriptome profile of M1- and M2-polarized host macrophages. PLoS ONE 15: e0233818.
2. Subramani, A., et al. 2023. Regulation of macrophage IFNγ-stimulated gene expression by the transcriptional coregulator CITED1. J. Cell Sci. 136: jcs260529.

STORAGE

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