SANTA CRUZ BIOTECHNOLOGY, INC.

MSP58 (H-300): sc-135288

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

MSP58, also known as MCRS1 (microspherule protein 1), P78 or INO80Q, is a 462 amino acid protein that localizes to the nucleus and contains one FHA domain. Expressed at high levels during the S phase of the cell cycle and present in testis, prostate, thymus, spleen and colon, MSP58 functions to modulate the transcriptional activity of Daxx (a transcriptional repressor) by recruiting Daxx to the nucleolus. Additionally, MSP58 may play a role in the inhibition of TERT telomerase activity, further implicating MSP58 as an important protein in transcriptional regulation. The gene encoding MSP58 maps to human chromosome 12 and is expressed as multiple alternatively spliced isoforms. Encoding over 1,100 genes within 132 million bases, chromosome 12 makes up about 4.5% of the human genome and is associated wirh hypochondrogenesis, achondrogenesis and Kniest dysplasia.

REFERENCES

1. Ren, Y., et al. 1998. The 58 kDa microspherule protein (MSP58), a nucleolar protein, interacts with nucleolar protein p120. Eur. J. Biochem. 253: 734-742.
2. Lin, D.Y. and Shih, H.M. 2002. Essential role of the 58 kDa microspherule protein in the modulation of Daxx-dependent transcriptional repression as revealed by nucleolar sequestration. J. Biol. Chem. 277: 25446-25456.
3. Song, H., et al. 2004. Human MCRS2, a cell-cycle-dependent protein, associates with LPTS/PinX1 and reduces the telomere length. Biochem. Biophys. Res. Commun. 316: 1116-1123.
4. Shimono, K., et al. 2005. Microspherule protein 1, Mi-2β, and RET finger protein associate in the nucleolus and upregulate ribosomal gene transcription. J. Biol. Chem. 280: 39436-39447.
5. Du, X., et al. 2006. DIPA, which can localize to the centrosome, associates with p78/MCRS1/MSP58 and acts as a repressor of gene transcription. Exp. Mol. Pathol. 81: 184-190.

CHROMOSOMAL LOCATION

Genetic locus: MCRS1 (human) mapping to 12q13.12; Mcrs1 (mouse) mapping to 15 F1.

SOURCE

MSP58 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of MSP58 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.

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.

APPLICATIONS

MSP58 (H-300) is recommended for detection of MSP58 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).

MSP58 (H-300) is also recommended for detection of MSP58 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for MSP58 siRNA (h): sc-75838, MSP58 siRNA (m): sc-75839, MSP58 shRNA Plasmid (h): sc-75838-SH, MSP58 shRNA Plasmid (m): sc-75839-SH, MSP58 shRNA (h) Lentiviral Particles: sc-75838-V and MSP58 shRNA (m) Lentiviral Particles: sc-75839-V.

Molecular Weight of MSP58: 58 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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