

Morc3 (G-12): sc-514672

BACKGROUND

The Microorchidia (Morc) family of proteins includes four predicted members in human (Morc1, Morc2, Morc3 and Morc4) and five in mice (Morc1, Morc2a, Morc2b, Morc3 and Morc4). Morc family CW-type zinc finger protein 3 (Morc3), also known as zinc finger CW-type coiled-coil domain protein 3 (ZCWC3), is a 939 amino acid protein belonging to the MORC family. Ubiquitously expressed in human cell lines, Morc3 contains one CW-type zinc finger and is localized to the nuclear matrix. Morc3 has been shown to play a role in recruiting p53 and SP-100 to promyelocytic leukemia (PML)-nuclear bodies (NBs). Furthermore, Morc3 regulates p53 activation in a manner dependent on Morc3-ATPase activity.

REFERENCES

1. Nagase, T., et al. 1995. Prediction of the coding sequences of unidentified human genes. IV. The coding sequences of 40 new genes (KIAA0121-KIAA0160) deduced by analysis of cDNA clones from human cell line KG-1. *DNA Res.* 2: 167-174, 199.
2. Inoue, N., et al. 1999. New gene family defined by Morc, a nuclear protein required for mouse spermatogenesis. *Hum. Mol. Genet.* 8: 1201-1207.
3. Inoue, N., et al. 2000. Assignment of microorchidia (Morc) to mouse chromosome 16 by interspecific backcross linkage analysis and human chromosome 3q13 using somatic cell hybrids and *in situ* hybridization. *Cytogenet. Cell Genet.* 90: 123-125.
4. Kimura, Y., et al. 2002. The newly identified human nuclear protein NXP-2 possesses three distinct domains, the nuclear matrix-binding, RNA-binding, and coiled-coil domains. *J. Biol. Chem.* 277: 20611-20617.

CHROMOSOMAL LOCATION

Genetic locus: MORC3 (human) mapping to 21q22.12; Morc3 (mouse) mapping to 16 C4.

SOURCE

Morc3 (G-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 387-406 within an internal region of Morc3 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Morc3 (G-12) is available conjugated to agarose (sc-514672 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514672 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514672 PE), fluorescein (sc-514672 FITC), Alexa Fluor® 488 (sc-514672 AF488), Alexa Fluor® 546 (sc-514672 AF546), Alexa Fluor® 594 (sc-514672 AF594) or Alexa Fluor® 647 (sc-514672 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514672 AF680) or Alexa Fluor® 790 (sc-514672 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514672 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Morc3 (G-12) is recommended for detection of Morc3 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 Morc3 siRNA (h): sc-91533, Morc3 siRNA (m): sc-149503, Morc3 shRNA Plasmid (h): sc-91533-SH, Morc3 shRNA Plasmid (m): sc-149503-SH, Morc3 shRNA (h) Lentiviral Particles: sc-91533-V and Morc3 shRNA (m) Lentiviral Particles: sc-149503-V.

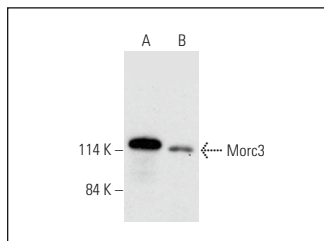
Molecular Weight of Morc3: 107 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or human lung extract: sc-363767.

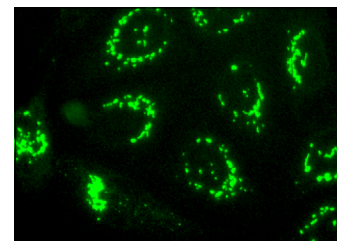
RECOMMENDED SUPPORT REAGENTS

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



Morc3 (G-12): sc-514672. Western blot analysis of Morc3 expression in HeLa whole cell lysate (A) and human lung tissue extract (B).



Morc3 (G-12): sc-514672. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear bodies localization.

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.

PROTOCOLS

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

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