SANTA CRUZ BIOTECHNOLOGY, INC.

MORF4L1 (E-8): sc-514877

The Power to Question

BACKGROUND

The members of the mortality factor family include mortality factor 4 (MORF4), MORF4L1 (also known as MRG15) and MORF4-related gene X (MRGX). The human MORF4 gene maps to chromosome 4q33-q34.1. MORF4 induces a senescent-like phenotype in complementation group B immortal cell lines. The genes encoding MRG15 and MRGX map to chromosomes 15q25.1 and Xq22, respectively. MORF4, MORF4L1 and MRGX each contain a C-terminal leucine zipper. An association between MORF4L1, Rb (retinoblastoma tumor suppressor) and PAM14 (protein associated with MORF4L1) suggests a role for MORF4L1 in transcription regulation. MORF4L1 also associates with the histone acetyl transferase MOF. In addition, MORF4 and MRGX interact with mSin3A and TLE (transducin-like enhancer of split). The MORF/mSin3A/TLE association may repress transcription. In Purkinje cells, MORF4L1 localizes to the dendrites and the nuclei.

REFERENCES

1. Bertram, M.J., et al. 1999. Identification of a gene that reverses the immortal phenotype of a subset of cells and is a member of a novel family of transcription factor-like genes. Mol. Cell. Biol. 19: 1479-1485.
2. Leung, J.K., et al. 2001. MRG15 activates the B-myb promoter through formation of a nuclear complex with the retinoblastoma protein and the novel protein PAM14. J. Biol. Chem. 276: 39171-39178.
3. Pardo, P.S., et al. 2002. MRG15, a novel chromodomain protein, is present in two distinct multiprotein complexes involved in transcriptional activation. J. Biol. Chem. 277: 50860-50866.
4. Yochum, G.S. and Ayer, D.E. 2002. Role for the mortality factors MORF4, MRGX, and MRG15 in transcriptional repression via associations with Pf1, mSin3A, and Transducin-Like Enhancer of Split. Mol. Cell. Biol. 22: 7868-7876.

CHROMOSOMAL LOCATION

Genetic locus: MORF4L1 (human) mapping to 15q25.1; Morf4l1 (mouse) mapping to 9 E3.1.

SOURCE

MORF4L1 (E-8) is a mouse monoclonal antibody raised against amino acids 1-51 mapping at the N-terminus of MORF4L1 of human 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.

MORF4L1 (E-8) is available conjugated to agarose (sc-514877 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514877 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514877 PE), fluorescein (sc-514877 FITC), Alexa Fluor® 488 (sc-514877 AF488), Alexa Fluor® 546 (sc-514877 AF546), Alexa Fluor® 594 (sc-514877 AF594) or Alexa Fluor® 647 (sc-514877 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514877 AF680) or Alexa Fluor® 790 (sc-514877 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

MORF4L1 (E-8) is recommended for detection of MORF4L1 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 MORF4L1 siRNA (h): sc-38045, MORF4L1 siRNA (m): sc-38046, MORF4L1 shRNA Plasmid (h): sc-38045-SH, MORF4L1 shRNA Plasmid (m): sc-38046-SH, MORF4L1 shRNA (h) Lentiviral Particles: sc-38045-V and MORF4L1 shRNA (m) Lentiviral Particles: sc-38046-V.

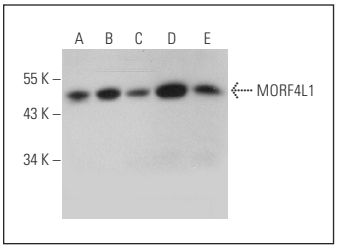
Molecular Weight of MORF4L1: 45 kDa.

Positive Controls: IMR-32 nuclear extract: sc-2148, HeLa whole cell lysate: sc-2200 or A549 cell lysate: sc-2413.

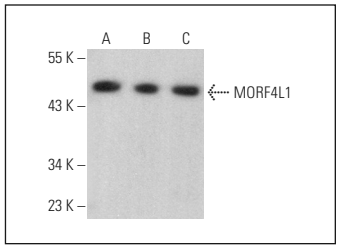
RECOMMENDED SUPPORT REAGENTS

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



MORF4L1 (E-8): sc-514877. Western blot analysis of MORF4L1 expression in K-562 (**A**), IMR-32 (**B**) and COLO 205 (**C**) nuclear extracts and HeLa (**D**) and A549 (**E**) whole cell lysates.



MORF4L1 (E-8): sc-514877. Western blot analysis of MORF4L1 expression in IMR-32 (**A**) and NIH/3T3 (**B**) nuclear extracts and Neuro-2A whole cell lysate (**C**).

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.