SANTA CRUZ BIOTECHNOLOGY, INC.

MORF4L1/2 (N-19): sc-26525

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The Power to Question

BACKGROUND

The members of the mortality factor family include mortality factor 4 (MORF4), mortality factor 4 like 1 (MORF4L1), also known as MORF4-related gene 15 (MRG15), and mortality factor 4 like 2 (MORF4L2), also known as MORF-4 related gene X (MRGX). The human MORF4 gene maps to chromosome 4q34.1. MORF4 induces a senescent-like phenotype in complementation group B immortal cell lines. The genes encoding MORF4L1 and MORF4L2 map to chromosomes 15q25.1 and Xq22.2, respectively. MORF4, MORF4L1 and MORF4L2 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, MORF4L1 and MORF4L2 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., et al. 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.
5. Matsuoka, Y., et al. 2002. A chromodomain-containing nuclear protein, MRG15 is expressed as a novel type of dendritic mRNA in neurons. Neurosci. Res. 42: 299-308.

CHROMOSOMAL LOCATION

Genetic locus: MORF4L1 (human) mapping to 15q25.1, MORF4L2 (human) mapping to Xq22.2; Morf4l1 (mouse) mapping to 9 E3.1, Morf4l2 (mouse) mapping to X F1.

SOURCE

MORF4L1/2 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MORF4L1 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-26525 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MORF4L1/2 (N-19) is recommended for detection of MORF4L1 and MORF4L2 of mouse 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).

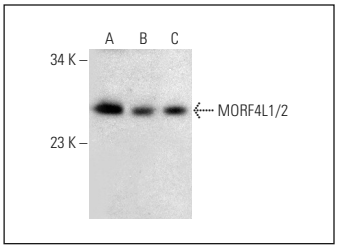
MORF4L1/2 (N-19) is also recommended for detection of MORF4L1 and MORF4L2 in additional species, including equine, canine, bovine and porcine.

Molecular Weight of MORF4L1: 41/37/27 kDa.

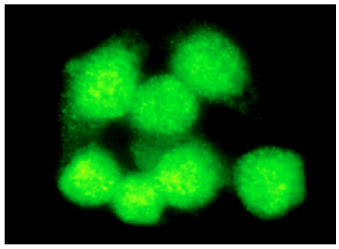
Molecular Weight of MORF4L2: 32 kDa.

Positive Controls: IMR-32 nuclear extract: sc-2148, HeLa whole cell lysate: sc-2200 or K-562 nuclear extract: sc-2130.

DATA



MORF4L1/2 (N-19): sc-26525. Western blot analysis of MORF4L1/2 expression in K-562 (**A**), IMR-32 (**B**) and COLO 320DM (**C**) nuclear extracts.



MORF4L1/2 (N-19): sc-26525. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear 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 or our catalog for detailed protocols and support products.