SANTA CRUZ BIOTECHNOLOGY, INC.

MEMO1 (C-16): sc-83725



BACKGROUND

MEM01 (mediator of cell motility 1), also known as C2orf4 or NS5ATP7, is a 297 amino acid protein that is thought to relax extracellular chemotactic signals that are targeted at the microtubule cytoskeleton, thereby controlling cell migration. Additionally, MEM01 is thought to mediate Neu signaling and is required for breast carcinoma migration, suggesting an important role in tumorigenesis. The gene encoding MEM01 maps to human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome. Harlequin icthyosis, a rare and morbid skin deformity, is associated with mutations in the chromosome 2-localized ABCA12 gene, while the lipid metabolic disorder sitosterolemia is associated with defects in the ABCG5 and ABCG8 genes, which also map to chromosome 2.

REFERENCES

- Cheng, N.C., Beitsma, M., Chan, A., Op den Camp, I., Westerveld, A., Pronk, J. and Versteeg, R. 1996. Lack of class I HLA expression in neuroblastoma is associated with high N-Myc expression and hypomethylation due to loss of the MEMO-1 locus. Oncogene 13: 1737-1744.
- McEvoy, C.R., Seshadri, R., Morley, A.A. and Firgaira, F.A. 2002. Frequency and genetic basis of MHC, β-2-microglobulin and MEMO-1 loss of heterozygosity in sporadic breast cancer. Tissue Antigens 60: 235-243.
- 3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611786. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- McEvoy, C.R., Morley, A.A. and Firgaira, F.A. 2003. Evidence for whole chromosome 6 loss and duplication of the remaining chromosome in acute lymphoblastic leukemia. Genes Chromosomes Cancer 37: 321-325.
- Marone, R., Hess, D., Dankort, D., Muller, W.J., Hynes, N.E. and Badache, A. 2004. MEMO mediates ErbB2-driven cell motility. Nat. Cell Biol. 6: 515-522.
- Hillier, L.W., Graves, T.A., Fulton, R.S., Fulton, L.A., Pepin, K.H., Minx, P., Wagner-McPherson, C., Layman, D., Wylie, K., Sekhon, M., Becker, M.C., Fewell, G.A., Delehaunty, K.D., Miner, T.L., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. Nature 434: 724-731.
- Qiu, C., Lienhard, S., Hynes, N.E., Badache, A. and Leahy, D.J. 2008. MEMO is homologous to nonheme iron dioxygenases and binds an ErbB2-derived phosphopeptide in its vestigial active site. J. Biol. Chem. 283: 2734-2740.

CHROMOSOMAL LOCATION

Genetic locus: MEM01 (human) mapping to 2p23.1; Memo1 (mouse) mapping to 17 E2.

SOURCE

MEM01 (C-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of MEM01 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, ready P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MEM01 (C-16) is recommended for detection of MEM01 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

MEM01 (C-16) is also recommended for detection of MEM01 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for MEMO1 siRNA (h): sc-106215, MEMO1 siRNA (m): sc-149368, MEMO1 shRNA Plasmid (h): sc-106215-SH, MEMO1 shRNA Plasmid (m): sc-149368-SH, MEMO1 shRNA (h) Lentiviral Particles: sc-106215-V and MEMO1 shRNA (m) Lentiviral Particles: sc-149368-V.

Molecular Weight (predicted) of MEMO1: 34 kDa.

Molecular Weight (observed) of MEM01: 43 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, SK-MEL-28 cell lysate: sc-2236 or A-375 cell lysate: sc-3811.

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) Immunofluo-rescence: 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.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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