SANTA CRUZ BIOTECHNOLOGY, INC.

BRMS1L (E-2): sc-518200

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The Power to Question

BACKGROUND

BRMS1L (breast cancer metastasis-suppressor 1-like) is a 323 amino acid protein that localizes to the nucleus and exists as a component of the mSin3A/HDAC1 (histone deacetylase) complex. Sharing similarity with BRMS1, BRMS1L is involved in HDAC1-dependent transcriptional repression and, in lung cancer tissue, functions to inhibit cell growth, suggesting a role in tumor suppression. The gene encoding BRMS1L maps to human chromosome 14, which houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder α1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

REFERENCES

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2. Nikolaev, A.Y., et al. 2004. Identification of a novel BRMS1-homologue protein p40 as a component of the mSin3A/p33(ING1b)/HDAC1 deacetylase complex. Biochem. Biophys. Res. Commun. 323: 1216-1222.
3. Meehan, W.J., et al. 2004. Breast cancer metastasis suppressor 1 (BRMS1) forms complexes with retinoblastoma-binding protein 1 (RBP1) and the mSin3 histone deacetylase complex and represses transcription. J. Biol. Chem. 279: 1562-1569.
4. Albani, D., et al. 2007. Presenilin-1 mutation E318G and familial Alzheimer's disease in the Italian population. Neurobiol. Aging 28: 1682-1688.
5. Cruz, P.E., et al. 2007. The promise of gene therapy for the treatment of α-1 antitrypsin deficiency. Pharmacogenomics 8: 1191-1198.
6. Filley, C.M., et al. 2007. The genetics of very early onset Alzheimer disease. Cogn. Behav. Neurol. 20: 149-156.
7. Martín-Subero, J.I., et al. 2007. A comprehensive genetic and histopathologic analysis identifies two subgroups of B-cell malignancies carrying a t(14;19)(q32;q13) or variant BCL3-translocation. Leukemia 21: 1532-1544.
8. Micci, F., et al. 2007. Molecular cytogenetic characterization of t(14;19)(q32;p13), a new recurrent translocation in B cell malignancies. Virchows Arch. 450: 559-565.

CHROMOSOMAL LOCATION

Genetic locus: BRMS1L (human) mapping to 14q13.2.

SOURCE

BRMS1L (E-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 183-206 of BRMS1L of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

BRMS1L (E-2) is recommended for detection of BRMS1L of 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 BRMS1L siRNA (h): sc-92226, BRMS1L shRNA Plasmid (h): sc-92226-SH and BRMS1L shRNA (h) Lentiviral Particles: sc-92226-V.

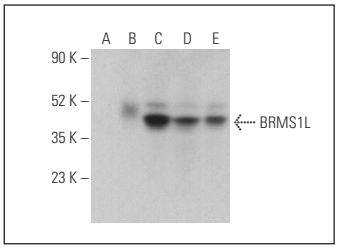
Molecular Weight of BRMS1L: 38 kDa.

Positive Controls: BRMS1L (h): 293T Lysate: sc-371018, Hep G2 cell lysate: sc-2227 or ZR-75-1 cell lysate: sc-2241.

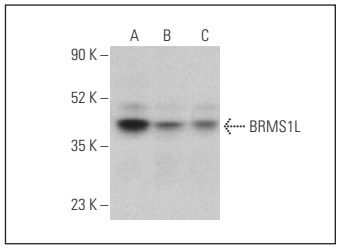
RECOMMENDED SUPPORT REAGENTS

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



BRMS1L (E-2): sc-518200. Western blot analysis of BRMS1L expression in non-transfected 293T: sc-117752 (**A**), human BRMS1L transfected 293T: sc-371018 (**B**), Hep G2 (**C**), ZR-75-1 (**D**) and SJRH30 (**E**) whole cell lysates. Detection reagent used: m-IgG_{2a} BP-HRP: sc-542731.



BRMS1L (E-2): sc-518200. Western blot analysis of BRMS1L expression in Hep G2 (**A**), ZR-75-1 (**B**) and SJRH30 (**C**) whole cell lysates. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.

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.