SANTA CRUZ BIOTECHNOLOGY, INC.

RG9MTD2 (T-14): sc-132429



The Power to Question

BACKGROUND

The RNA methyltransferase family of proteins catalyze the transfer of a methyl group from a donor to an RNA acceptor. Via their ability to modify RNA, RNA methyltransferase proteins play an important role in cell growth and signaling pathways and may be involved in tumor development and progression. The RNA (guanine-9-) methyltransferase domain containing proteins (namely RG9MTD1, RG9MTD2 and RG9MTD3) are probable RNA methyltransferases that may play a role in RNA modification. Due to their involvement in RNA-related pathways, the RG9MTD proteins may be associated with methylation events that lead to carcinogenesis. While both RG9MTD1 and RG9MTD2 exist as one known isoform, RG9MTD3 is expressed as three isoforms produced by alternative splicing events.

REFERENCES

- Scanlan, M.J., Gordan, J.D., Williamson, B., Stockert, E., Bander, N.H., Jongeneel, V., Gure, A.O., Jäger, D., Jäger, E., Knuth, A., Chen, Y.T. and Old, L.J. 1999. Antigens recognized by autologous antibody in patients with renal-cell carcinoma. Int. J. Cancer 83: 456-464.
- Lu, Y.Y., Li, K., Wang, L., Liu, Y., Wang, Y.D., Cheng, J. and Zhang, L.X. 2003. Screening of the genes of hepatitis B virus PreS2 interacting proteins. Zhonghua Gan Zang Bing Za Zhi 11: 8-10.
- 3. Sjöblom, T., Jones, S., Wood, L.D., Parsons, D.W., Lin, J., Barber, T.D., Mandelker, D., Leary, R.J., Ptak, J., Silliman, N., Szabo, S., Buckhaults, P., Farrell, C., Meeh, P., Markowitz, S.D., Willis, J., Dawson, D., Willson, J.K., Gazdar, A.F., Hartigan, J., Wu, L., Liu, C., Parmigiani, G., Park, B.H., Bachman, K.E., Papadopoulos, N., Vogelstein, B., Kinzler, K.W. and Velculescu, V.E. 2006. The consensus coding sequences of human breast and colorectal cancers. Science 314: 268-274.
- Benayoun, L., Granot, E., Rizel, L., Allon-Shalev, S., Behar, D.M. and Ben-Yosef, T. 2007. Abetalipoproteinemia in Israel: evidence for a founder mutation in the Ashkenazi Jewish population and a contiguous gene deletion in an Arab patient. Mol. Genet. Metab. 90: 453-457.

CHROMOSOMAL LOCATION

Genetic locus: RG9MTD2 (human) mapping to 4q23; Rg9mtd2 (mouse) mapping to 3 G3.

SOURCE

RG9MTD2 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RG9MTD2 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-132429 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

RG9MTD2 (T-14) is recommended for detection of RG9MTD2 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); non cross-reactive with family members RG9MTD1 or RG9MTD3.

Suitable for use as control antibody for RG9MTD2 siRNA (h): sc-89022, RG9MTD2 siRNA (m): sc-152831, RG9MTD2 shRNA Plasmid (h): sc-89022-SH, RG9MTD2 shRNA Plasmid (m): sc-152831-SH, RG9MTD2 shRNA (h) Lentiviral Particles: sc-89022-V and RG9MTD2 shRNA (m) Lentiviral Particles: sc-152831-V.

Molecular Weight of RG9MTD2: 40 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO 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.