

# RG9MTD1 (A-8): sc-515289

## 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

1. 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.
2. 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., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. *Science* 314: 268-274.
4. 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: TRMT10C (human) mapping to 3q12.3; Trmt10c (mouse) mapping to 16 C1.1.

## SOURCE

RG9MTD1 (A-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 331-355 near the C-terminus of RG9MTD1 of human origin.

## PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-515289 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

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

## APPLICATIONS

RG9MTD1 (A-8) is recommended for detection of RG9MTD1 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 RG9MTD1 siRNA (h): sc-78547, RG9MTD1 siRNA (m): sc-152830, RG9MTD1 shRNA Plasmid (h): sc-78547-SH, RG9MTD1 shRNA Plasmid (m): sc-152830-SH, RG9MTD1 shRNA (h) Lentiviral Particles: sc-78547-V and RG9MTD1 shRNA (m) Lentiviral Particles: sc-152830-V.

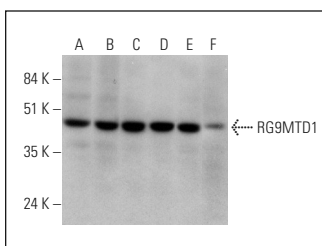
Molecular Weight of RG9MTD1: 47 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or PC-12 cell lysate: sc-2250.

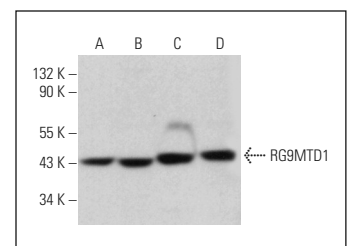
## RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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



RG9MTD1 (A-8): sc-515289. Western blot analysis of RG9MTD1 expression in PANC-1 (A), RT-4 (B), HeLa (C), Hep G2 (D) and U-251-MG (E) whole cell lysates and human liver tissue extract (F).



RG9MTD1 (A-8): sc-515289. Western blot analysis of RG9MTD1 expression in Hep G2 (A), Caco-2 (B), PC-3 (C) and PC-12 (D) whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.