10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# RG9MTD1 antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI11810

## Product Information

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| **Application** | WB |
| **Primary Accession** | Q7L0Y3 |
| **Other Accession** | NM_017819, NP_060289 |
| **Reactivity** | Human, Mouse, Rat, Rabbit, Zebrafish, Dog, Horse, Bovine |
| **Predicted** | Human, Rabbit, Zebrafish |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 47347 |

## Additional Information

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| **Gene ID** | 54931 |
| **Alias Symbol** | FLJ20432, MRPP1, RG9MTD1 |
| **Other Names** | Mitochondrial ribonuclease P protein 1, Mitochondrial RNase P protein 1, 2.1.1.-, HBV pre-S2 trans-regulated protein 2, RNA (guanine-9-)-methyltransferase domain-containing protein 1, Renal carcinoma antigen NY-REN-49, tRNA methyltransferase 10 homolog C, TRMT10C, MRPP1, RG9MTD1 |
| **Format** | Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose. |
| **Reconstitution & Storage** | Add 50 ul of distilled water. Final anti-RG9MTD1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles. |
| **Precautions** | RG9MTD1 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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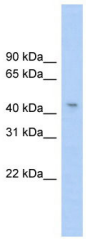
| **Name** | TRMT10C ( HGNC:26022) |
| **Function** | Mitochondrial tRNA N(1)-methyltransferase involved in mitochondrial tRNA maturation (PubMed:18984158, PubMed:21593607, PubMed:23042678, PubMed:27132592). Component of mitochondrial ribonuclease P, a complex composed of TRMT10C/MRPP1, HSD17B10/MRPP2 and PRORP/MRPP3, which cleaves tRNA molecules in their 5'-ends (PubMed:18984158). Together with HSD17B10/MRPP2, forms a subcomplex of the mitochondrial ribonuclease P, named MRPP1-MRPP2 subcomplex, which displays functions that are |

independent of the ribonuclease P activity (PubMed:23042678, PubMed:29040705). The MRPP1-MRPP2 subcomplex catalyzes the formation of N(1)-methylguanine and N(1)-methyladenine at position 9 (m1G9 and m1A9, respectively) in tRNAs; TRMT10C/MRPP1 acting as the catalytic N(1)-methyltransferase subunit (PubMed:23042678). The MRPP1-MRPP2 subcomplex also acts as a tRNA maturation platform: following 5'-end cleavage by the mitochondrial ribonuclease P complex, the MRPP1-MRPP2 subcomplex enhances the efficiency of 3'-processing catalyzed by ELAC2, retains the tRNA product after ELAC2 processing and presents the nascent tRNA to the mitochondrial CCA tRNA nucleotidyltransferase TRNT1 enzyme (PubMed:29040705). In addition to tRNA N(1)-methyltransferase activity, TRMT10C/MRPP1 also acts as a mRNA N(1)-methyltransferase by mediating methylation of adenosine residues at the N(1) position of MT-ND5 mRNA (PubMed:29072297). Associates with mitochondrial DNA complexes at the nucleoids to initiate RNA processing and ribosome assembly.

**Cellular Location** Mitochondrion matrix, mitochondrion nucleoid

## Images




WB Suggested Anti-RG9MTD1 Antibody Titration: 0.2-1 µg/ml
Positive Control: Hela cell lysate