

## TRDMT1 (DNMT2) Protein

Full length recombinant protein expressed in Sf9 cells

**Catalog # T352-30G**

Lot # F660-3

### Product Description

Recombinant full-length human TRDMT1 (DNMT2) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. The gene accession number is [BC047733](#).

### Gene Aliases

DNMT2; DMNT2; PUMET; RNMT1; MHSALP

### Formulation

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 50mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.

### Storage and Stability

Store product at  $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

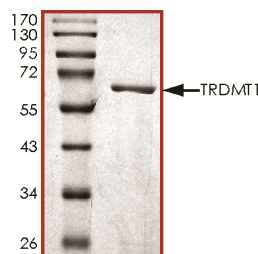
### Scientific Background

TRDMT1 is responsible for the methylation of aspartic acid transfer RNA, specifically at the cytosine-38 residue in the anticodon loop. TRDMT1 also possesses residual DNA-(cytosine-C5) methyltransferase activity. While similar in sequence and structure to DNA cytosine methyltransferases, TRDMT1 is distinct and highly conserved in its function among various species. The indirect sequence recognition is also a feature of eukaryotic DNA methyltransferases, which may have arisen from a DNMT2-like RNA methyltransferase (1). DNMT2 is involved in retrotransposon silencing and telomere integrity in somatic cells (2).

### References

- Goll, M. G. et.al: Methylation of tRNA(Asp) by the DNA methyltransferase homolog Dnmt2. *Science* 311: 395-397, 2006.
- Phalke, S. et.al: Retrotransposon silencing and telomere integrity in somatic cells of *Drosophila* depends on the cytosine-5 methyltransferase DNMT2. *Nature Genet.* 41: 696-702, 2009.

### Purity



The purity of TRDMT1 protein was determined to be **>95%** by densitometry. Approx. MW **67kDa**.

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Catalog Number	T352-30G
Specific Lot Number	F660-3
Purity	>95%
Concentration	0.1 µg/µl
Stability	1yr At $-70^{\circ}\text{C}$ from date of shipment
Storage & Shipping	Store product at $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

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