

## Recombinant Human TRDMT1 , GST-tagged

**Cat. No.** TRDMT1-6969H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant full-length human TRDMT1 (DNMT2) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Source</b>           | Sf9 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>ProteinLength</b>    | Full length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>      | 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. DNMT2 is involved in retrotransposon silencing and telomere integrity in somatic cells. |
| <b>Form</b>             | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Molecular Mass</b>   | ~67 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Purity</b>           | >95%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Applications</b>        | Western Blot                                                                                                                                                                                                                                                                                                               |
| <b>Storage</b>             | Store at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles.                                                                                                                                                           |
| <b>Concentration</b>       | 0.1 µg/µ                                                                                                                                                                                                                                                                                                                   |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                                                                                                                                                                            |
| <b>Gene Name</b>           | TRDMT1 tRNA aspartic acid methyltransferase 1 [ Homo sapiens ]                                                                                                                                                                                                                                                             |
| <b>Official Symbol</b>     | TRDMT1                                                                                                                                                                                                                                                                                                                     |
| <b>Synonyms</b>            | TRDMT1; tRNA aspartic acid methyltransferase 1; DNA (cytosine 5 ) methyltransferase 2 , DNMT2; tRNA (cytosine(38)-C(5))-methyltransferase; RNMT1; DNA methyltransferase-2; DNA MTase homolog HsaIIP; tRNA (cytosine-5)-methyltransferase; DNA (cytosine-5)-methyltransferase-like protein 2; DMNT2; DNMT2; PUMET; MHSALIP; |
| <b>Gene ID</b>             | 1787                                                                                                                                                                                                                                                                                                                       |
| <b>mRNA Refseq</b>         | NM_004412                                                                                                                                                                                                                                                                                                                  |
| <b>Protein Refseq</b>      | NP_004403                                                                                                                                                                                                                                                                                                                  |
| <b>MIM</b>                 | 602478                                                                                                                                                                                                                                                                                                                     |
| <b>UniProt ID</b>          | O14717                                                                                                                                                                                                                                                                                                                     |
| <b>Chromosome Location</b> | 10p15.1                                                                                                                                                                                                                                                                                                                    |

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**Function**

DNA (cytosine-5-)-methyltransferase activity; DNA binding; RNA binding;  
methyltransferase activity; transferase activity;

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