

## Recombinant Human DNMT1 protein, His-FLAG-tagged

Cat. No. DNMT1-01H    Lot. No. (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant human DNMT1 (DNA methyltransferase 1), encompassing amino acids 501-1632 (end). This construct contains an N-terminal His-tag (6xHis) followed by a FLAG tag. The protein was affinity purified. Scientific Category: Methyltransferase.                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>           | Sf9 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ProteinLength</b>    | 501-1632 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>      | This gene encodes an enzyme that transfers methyl groups to cytosine nucleotides of genomic DNA. This protein is the major enzyme responsible for maintaining methylation patterns following DNA replication and shows a preference for hemi-methylated DNA. Methylation of DNA is an important component of mammalian epigenetic gene regulation. Aberrant methylation patterns are found in human tumors and associated with developmental abnormalities. Variation in this gene has been associated with cerebellar ataxia, deafness, and narcolepsy, and neuropathy, hereditary sensory, type IE. Alternative splicing results in multiple transcript variants. |
| <b>Form</b>             | 40 mM Tris-HCl, pH 8.0, 110 mM NaCl, 2.2 mM KCl, 80 ng/μFLAG peptide, and 20% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Molecular Mass</b>   | 130 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Purity</b>           | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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|---------------------|-------------------------------------------------------------------------------------------|
| <b>Applications</b> | Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling. |
| <b>Notes</b>        | Avoid freeze/thaw cycles.                                                                 |
| <b>Storage</b>      | At least 6 months at –80 centigrade.                                                      |
| <b>Shipping</b>     | -80 centigrade                                                                            |

## GENE INFORMATION

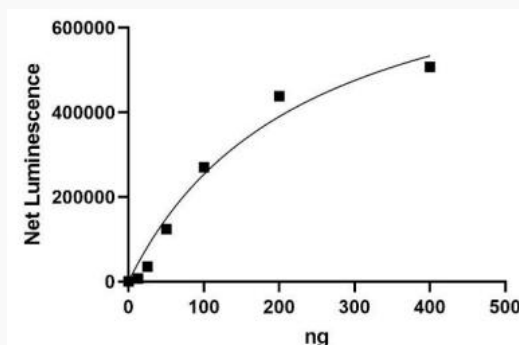
|                        |                                                                                                                                                |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | DNMT1 DNA methyltransferase 1 [ Homo sapiens (human) ]                                                                                         |
| <b>Official Symbol</b> | DNMT1                                                                                                                                          |
| <b>Synonyms</b>        | TRDMT1; DNA; DNA (cytosine-5)-methyltransferase 1; DNMT1; ADCADN; AIM; CXXC9; DNMT; HSN1E; MCMT; m.HsaI; DNA (cytosine-5-)-methyltransferase 1 |
| <b>Gene ID</b>         | 1786                                                                                                                                           |
| <b>mRNA Refseq</b>     | NM_001130823                                                                                                                                   |
| <b>Protein Refseq</b>  | NP_001124295                                                                                                                                   |
| <b>MIM</b>             | 126375                                                                                                                                         |
| <b>UniProt ID</b>      | P26358                                                                                                                                         |

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### DNMT1 Activity



### 4-20%SDS-Page Coomassie Staining

