

**Catalog No.: RP01995LQ** **Recombinant**

| Species | Gene ID | Swiss Prot |
|---------|---------|------------|
| Human   | 1786    | P26358-2   |

**Tags**  
NO-Tag

DNMT1; AIM; CXXC9; DNMT;DNA  
(cytosine-5)-methyltransferase 1;  
Dnmt1; EC:2.1.1.37; CXXC-type zinc  
finger protein 9; DNA methyltransferase  
Hsa1; DNA MTase Hsa1; M.Hsa1; MCMT

|               |                                   |
|---------------|-----------------------------------|
| <b>Source</b> | <b>Purification</b>               |
| HEK293 cells  | ≥ 95 % as determined by SDS-PAGE. |

| Calculated MW | Observed MW |
|---------------|-------------|
| 140-180 kDa   |             |

< 0.01 EU/μg of the protein by LAL method

## Reconstitution

DNMT1 (DNA (Cytosine-5)-Methyltransferase 1) proteins are involved in DNA methylation in which a methyl group is added to a cytosine residue on DNA, commonly at the C5 position of a CpG dinucleotide. Three families of DNMTs have been identified: DNMT1, DNMT2, and DNMT3 (comprised of DNMT3A and DNMT3B). DNMT1 methylates CpG residues. Preferentially methylates hemimethylated DNA. Associates with DNA replication sites in S phase maintaining the methylation pattern in the newly synthesized strand, that is essential for epigenetic inheritance. Associates with chromatin during G2 and M phases to maintain DNA methylation independently of replication. It is responsible for maintaining methylation patterns established in development. DNA methylation is coordinated with methylation of histones. Mediates transcriptional repression by direct binding to HDAC2. In association with DNMT3B and via the recruitment of CTCFL/BORIS, involved in activation of BAG1 gene expression by modulating dimethylation of promoter histone H3 at H3K4 and H3K9.

Recombinant Human DNMT1(304-1616) Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Pro304-Asp1616) of Human DNMT1 (Accession #NP\_001124295.1)

Lyophilized proteins are shipped at ambient temperature.  
Liquid proteins are shipped at frozen temperature with dry ice.  
Upon receipt, store it immediately at the temperature recommended below.

Store at -80°C  
Avoid repeated freeze/thaw cycles.

For your safety and health, please wear a lab coat and disposable gloves for handling.

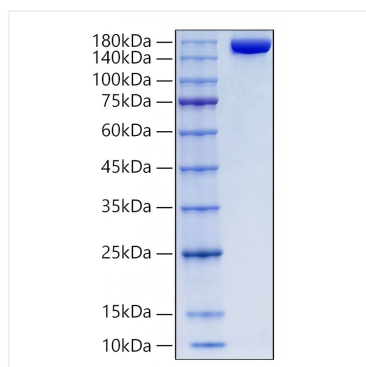
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## Validation Data

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Recombinant Human DNMT1(304-1616)  
Protein was determined by SDS-PAGE under  
reducing conditions with Coomassie Blue.