DNMT2 Protein, Human (sf9, GST)

Cat. No.:	HY-P75711
Synonyms:	tRNA (cytosine(38)-C(5))-methyltransferase; M.HsaIIP; PuMet; TRDMT1; DNMT2
Species:	Human
Source:	Sf9 insect cells
Accession:	O14717 (M1-E391)
Gene ID:	1787
Molecular Weight:	Approximately 60 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 50 mM Tris, 100 mM NaCl, 0.5 mM GSH, 0.5 mM PMSF, pH 8.0. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	DNMT2 protein exhibits remarkable specificity in its enzymatic activity, as it selectively methylates cytosine 38 within the anticodon loop of tRNA(Asp). This site-specific methylation event plays a crucial role in the epigenetic modification of transfer RNA molecules, potentially influencing their structure, stability, and functional interactions. By targeting a specific cytosine residue in the anticodon loop of tRNA(Asp), DNMT2 contributes to the modulation of translational efficiency and fidelity. The enzyme's precision in methylating this particular site underscores its significance in the intricate regulatory mechanisms governing tRNA function, emphasizing the importance of DNMT2 in the epigenetic landscape of cellular processes involving tRNA(Asp).

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