Recombinant TRDMT protein (His tag)

Catalog Number	541718
Synonyms	cytosine(38)-C(5); DNA (cytosine-5)-methyltransferase-like protein 2; Dnmt2; DNA methyltransferase homolog HsaIIP; DNA MTase homolog HsaIIP; M.HsaIIP; PuMet
Species	Human
Expression System	E. coli
Accession	O14717
Molecular Weight	Predictes a molecular mass of 23.03 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	1-188
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-188 aa (O14717) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human tRNA (cytosine(38)-C(5))-methyltransferase (Dnmt2) Fragment (residues 1-188) is a high-quality protein designed for structural and biochemical studies. This soluble, stable fragment retains key features of the full-length enzyme, which specifically methylates cytosine 38 in the anticodon loop of tRNA(Asp), supporting research in RNA modification and epigenetic regulation. The full-length tRNA (cytosine(38)-C(5))-methyltransferase (Dnmt2), encoded by the TRDMT1 gene in Homo sapiens, functions as a specialized RNA methyltransferase that catalyzes cytosine methylation at position 38 in the anticodon loop of tRNA(Asp). It exhibits enhanced activity on tRNA(Asp) substrates containing queuosine modification at position 34, highlighting its role in fine-tuning tRNA structure and function. Located in the cytoplasm, this enzyme contributes to post-transcriptional regulatory mechanisms, with implications for understanding RNA epigenetics and cellular metabolism. The recombinant fragment (residues 1-188) provides a defined, soluble unit optimized for experimental applications while reflecting the native protein's functional context.