Recombinant TRM7 protein (His tag)

Catalog Number	541464
Synonyms	cytidine(32)/guanosine(34)-2'-O; 2'-O-ribose RNA methyltransferase TRM7 homolog; Protein ftsJ homolog 1
Species	Human
Expression System	E. coli
Accession	Q9UET6
Molecular Weight	Predictes a molecular mass of 33.81 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	1-293
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-293 aa (Q9UET6) 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 (cytidine(32)/guanosine(34)-2'-O)-methyltransferase (FTSJ1) Fragment (aa 1-293) is a high-purity, soluble protein designed for structural and functional studies. This fragment retains key catalytic activity for 2'-O-ribose methylation in tRNA anticodon loops, enabling research into translation regulation and RNA modification mechanisms. The full-length FTSJ1 protein, encoded by the FTSJ1 gene in Homo sapiens, functions as a tRNA methyltransferase (EC 2.1.1.205) that specifically methylates the 2'-O-ribose of nucleotides at positions 32 and 34 within the tRNA anticodon loop. This enzymatic activity is essential for faithful cytoplasmic translation and promotes translation efficiency of specific codons, particularly UUU. FTSJ1 requires cofactors THADA and WDR6 for position-specific methylation and plays critical roles in neurogenesis, mitochondrial function, energy generation, lipid biosynthesis, and RNA-mediated gene silencing. The protein localizes predominantly to the cytoplasm with some nuclear presence, reflecting its broad involvement in cellular RNA processing and gene expression regulation.