Recombinant TRM13 protein (His tag)

Catalog Number	548853
Synonyms	4; Coiled-coil domain-containing protein 76
Species	Human
Expression System	E. coli
Accession	Q9NUP7
Molecular Weight	Predictes a molecular mass of 33.71 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 35 kDa band.

Product Information

Sequence Region	2-287
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 2-287 aa (Q9NUP7) 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 TRM13 (tRNA:m(4)X modification enzyme TRM13 homolog) fragment (residues 2-287), a high-purity protein designed for structural and biochemical studies. This fragment represents a stable, soluble unit of the enzyme responsible for 2'-O-methylation of cytidine and adenosine at position 4 in specific tRNAs, supporting research into tRNA modification mechanisms. The full-length TRM13 enzyme, encoded by the TRMT13 gene, functions as a tRNA methyltransferase (EC 2.1.1.225) that catalyzes the 2'-O-methylation of cytidine at position 4 in tRNA(Pro) and tRNA(Gly)(GCC), as well as adenosine at position 4 in tRNA(His). This post-transcriptional modification is critical for tRNA stability, folding, and accurate translation, with implications in gene expression regulation. The selected fragment (residues 2-287) encompasses a computationally optimized region for experimental use, enabling investigations into the enzyme's catalytic activity and structure-function relationships without domain annotations.