Recombinant TM10A protein (His tag)

Catalog Number	540823
Synonyms	RNA (guanine-9-)-methyltransferase domain-containing protein 2; tRNA (guanine(9)-N(1))-methyltransferase TRMT10A
Species	Human
Expression System	E. coli
Accession	Q8TBZ6
Molecular Weight	Predictes a molecular mass of 29.87 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band.

Product Information

Sequence Region	41-275
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 41-275 aa (Q8TBZ6) 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 TRMT10A Fragment (41-275) is a high-quality, soluble protein fragment derived from human tRNA methyltransferase 10 homolog A. This product is engineered for structural and biochemical studies, representing a stable and functional unit that retains key catalytic properties for investigating tRNA modification mechanisms. The full-length TRMT10A protein is an S-adenosyl-L-methionine-dependent guanine N(1)-methyltransferase that specifically catalyzes the formation of N(1)-methylguanine at position 9 (m1G9) in tRNAs, playing a critical role in post-transcriptional RNA modification. While it demonstrates specificity for guanine methylation, it does not catalyze N(1)-methyladenine formation at position 9. TRMT10A is primarily localized to the nucleus, with significant concentration in the nucleolus, indicating its involvement in ribosomal biogenesis and nuclear tRNA processing pathways. This methyltransferase function is essential for proper tRNA structure and function, contributing to translational regulation and cellular homeostasis.