Recombinant TRMO protein (His tag)

Catalog Number	549631
Synonyms	adenine(37)-N6; tRNA methyltransferase O
Species	Human
Expression System	E. coli
Accession	Q9BU70
Molecular Weight	Predictes a molecular mass of 20.10 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band.

Product Information

Sequence Region	1-168
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 1-168 aa (Q9BU70) 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 fragment of human tRNA (adenine(37)-N6)-methyltransferase (TRMO), encompassing amino acids 1-168. This high-purity protein includes the complete TsaA-like functional domain, making it an ideal tool for investigating tRNA modification mechanisms and methyltransferase activity in vitro. tRNA (adenine(37)-N6)-methyltransferase (TRMO) is an S-adenosyl-L-methionine-dependent methyltransferase that catalyzes the formation of N6-methyl-N6-threonylcarbamoyladenosine at position 37 (m(6)t(6)A37) in the anticodon loop of tRNA(Ser)(GCU). This modification enhances tRNA decoding efficiency during protein synthesis. The enzyme plays a crucial role in maintaining translational fidelity and is conserved across species, with functional insights derived from both human studies and model organisms.