Recombinant THUM3 protein (His tag)

Catalog Number	545833
Synonyms	guanine(6)-N(2); THUMP domain-containing protein 3; tRNA(Trp) (guanine(7)-N(2))-methyltransferase THUMP3
Species	Human
Expression System	E. coli
Accession	Q9BV44
Molecular Weight	Predictes a molecular mass of 33.37 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	224-507
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 224-507 aa (Q9BV44) 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 THUMPD3 (224-507) is a high-purity protein fragment derived from human tRNA (guanine(6)-N(2))-methyltransferase THUMP3. This 284-amino acid fragment is engineered for stability and solubility, making it an ideal tool for structural studies and enzymatic assays investigating tRNA methylation mechanisms. The full-length THUMPD3 protein functions as the catalytic subunit of the THUMPD3-TRM112 methyltransferase complex in humans. It specifically catalyzes S-adenosyl-L-methionine-dependent N(2)-methylation of guanosine at position 6 (m2G6) in tRNAs, representing one of the major tRNA (guanine-N(2))-methyltransferases. Additionally, it mediates N(2)-methylation of guanosine at position 7 in tRNA(Trp). This enzyme is localized to the cytoplasm, where it plays crucial roles in tRNA modification and regulation of translation processes.