Recombinant MET2A protein (His tag)

Catalog Number	545698
Synonyms	3; Methyltransferase-like protein 2A
Species	Human
Expression System	E. coli
Accession	Q96IZ6
Molecular Weight	Predictes a molecular mass of 24.93 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	174-378
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 174-378 aa (Q96IZ6) 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	This recombinant protein product features a stable and soluble fragment (residues 174-378) of human tRNA N(3)-cytidine methyltransferase METTL2A, designed for structural and biochemical studies. This fragment represents a key functional region of METTL2A, an enzyme involved in post-transcriptional tRNA modification, making it an ideal tool for investigating methylation mechanisms and RNA regulation. METTL2A is a human S-adenosyl-L-methionine-dependent methyltransferase that catalyzes the N(3)-methylcytidine modification at position 32 in the anticodon loop of tRNA(Thr)(UGU) and tRNA(Arg)(CCU). This enzymatic activity is dependent on prior N6-threonylcarbamoylation of tRNA at position 37 (t6A37) by the EKC/KEOPS complex, highlighting its role in a coordinated tRNA maturation pathway. METTL2A localizes to the cytoplasm, where it contributes to fine-tuning translational efficiency and accuracy through specific tRNA modifications. These modifications are critical for maintaining proper codon-anticodon interactions and ensuring faithful protein synthesis.