Recombinant EFNMT protein (His tag)

Catalog Number	540750
Synonyms	eEF1A-KNMT; Methyltransferase-like protein 13
Species	Human
Expression System	E. coli
Accession	Q8N6R0
Molecular Weight	Predictes a molecular mass of 50.85 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 52 kDa band.

Product Information

Sequence Region	1-431
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 1-431 aa (Q8N6R0) 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 1-431) of human eEF1A lysine and N-terminal methyltransferase (eEF1A-KNMT), also known as METTL13. This fragment is ideal for structural studies and biochemical assays investigating the dual methyltransferase activity that regulates mRNA translation. The full-length eEF1A-KNMT (METTL13) is a dual-function methyltransferase that catalyzes methylation of elongation factor 1-alpha (EEF1A1 and EEF1A2) at two distinct positions: dimethylation at Lys-55 via its N-terminal domain and methylation at the N-terminal Gly-2 residue via its C-terminal domain. These modifications play critical roles in regulating mRNA translation. The protein localizes to the cytoplasm, nucleus, and mitochondria, but shows no methyltransferase activity toward core histones H2A, H2B, H3, or H4, indicating specificity for elongation factor targets.