Recombinant MCES protein (His tag)

Catalog Number	541758
Synonyms	7; RG7MT1; mRNA (guanine-N(7))-methyltransferase; mRNA cap methyltransferase; hCMT1; hMet; hcm1p
Species	Human
Expression System	E. coli
Accession	O43148
Molecular Weight	Predictes a molecular mass of 40.63 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 43 kDa band.

Product Information

Sequence Region	144-476
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 144-476 aa (O43148) 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 Human mRNA Cap Guanine-N(7) Methyltransferase (RNMT) Fragment (aa 144-476) – a high-purity protein fragment encompassing the essential mRNA cap 0 methyltransferase domain. This product is an invaluable tool for investigating the catalytic mechanisms of mRNA 5'-cap methylation, enabling targeted studies on gene expression regulation and RNA processing. The full-length mRNA cap guanine-N(7) methyltransferase (RNMT) is a nuclear enzyme that serves as the catalytic subunit of the mRNA-capping methyltransferase RNMT:RAMAC complex. It specifically methylates the N7 position of the guanosine residue in the 5'-cap structure of mRNAs, a critical modification for mRNA stability, nuclear export, and efficient translation initiation. RNMT binds RNA containing 5'-terminal GpppC and plays a fundamental role in mRNA maturation and gene expression control. The protein is localized to the nucleus, consistent with its function in co-transcriptional RNA processing.