Recombinant TUT7 protein (His tag)

Catalog Number	545177
Synonyms	TUTase 7; Zinc finger CCHC domain-containing protein 6
Species	Human
Expression System	E. coli
Accession	Q5VYS8
Molecular Weight	Predictes a molecular mass of 51.10 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 53 kDa band.

Product Information

Sequence Region	203-634
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 203-634 aa (Q5VYS8) 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 Terminal Uridylyltransferase 7 (TUTase 7) Fragment (203-634) from Homo sapiens is a high-purity protein designed for studying mRNA decay, microRNA biogenesis, and post-transcriptional gene regulation. This fragment includes the essential PAP-associated domain (551-600), offering researchers a targeted tool to investigate domain-specific functions in RNA uridylation and stability. Terminal Uridylyltransferase 7 (TUT7) is a key enzyme involved in post-transcriptional RNA regulation, primarily localized in the cytoplasm. It catalyzes the terminal uridylation of mRNAs with short poly(A) tails, facilitating global mRNA decay and playing a critical role in maternal transcriptome remodeling during oocyte maturation. TUT7 also regulates microRNA biogenesis through multiple uridylation mechanisms, such as suppressing miRNA precursors like let-7 in collaboration with LIN28A and optimizing pre-miRNA processing. Additionally, it restricts retrotransposition of LINE-1 elements by uridylating LINE-1 mRNAs, inhibiting reverse transcription. Due to functional redundancy with TUT4, TUT7's specific roles are best studied in conjunction with its paralog, emphasizing its importance in RNA metabolism and cellular function.