Recombinant GLD2 protein (His tag)

Catalog Number	542930
Synonyms	A; hGLD-2; PAP-associated domain-containing protein 4; Terminal nucleotidyltransferase 2; Terminal uridylyltransferase 2; TUTase 2
Species	Human
Expression System	E. coli
Accession	Q6PIY7
Molecular Weight	Predictes a molecular mass of 40.83 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 41 kDa band.

Product Information

Sequence Region	147-484
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 147-484 aa (Q6PIY7) 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 GLD2 (TENT2) Fragment (aa 147-484) - A high-purity protein fragment encompassing the complete PAP-associated domain of cytoplasmic poly(A) RNA polymerase GLD-2, ideal for studying cytoplasmic mRNA polyadenylation and miRNA monoadenylation mechanisms. Human GLD2 (TENT2) is a cytoplasmic poly(A) RNA polymerase that selectively adds AMP monomers to the 3'-end of specific cytoplasmic mRNAs, forming poly(A) tails distinct from canonical nuclear polyadenylation. This enzyme also plays a crucial role in miRNA regulation by adding single nucleotides to miRNA 3' ends, with monoadenylation stabilizing and prolonging the activity of certain miRNAs. GLD2 localizes to both the cytoplasm and nucleus and does not participate in replication-dependent histone mRNA degradation. The protein represents a specialized polyadenylation machinery operating in the cytoplasmic compartment, offering unique regulatory control over mRNA stability and miRNA function in post-transcriptional gene regulation.