Recombinant DUS3L protein (His tag)

Catalog Number	545680
Synonyms	47; P; +; mRNA-dihydrouridine synthase DUS3L; tRNA-dihydrouridine synthase 3-like
Species	Human
Expression System	E. coli
Accession	Q96G46
Molecular Weight	Predictes a molecular mass of 43.68 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band.

Product Information

Sequence Region	283-650
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 283-650 aa (Q96G46) 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 DUS3L Protein Fragment (283-650) - A high-quality, stable fragment of tRNA-dihydrouridine(47) synthase [NAD(P)(+)]-like (DUS3L), specifically engineered for structural and biochemical studies. This soluble protein fragment maintains functional relevance for investigating RNA modification mechanisms. The full-length DUS3L protein is a human RNA-modifying enzyme that catalyzes the synthesis of dihydrouridine, a modified base found in various RNA species. It primarily modifies uridine at position 47 (U47) in the D-loop of most cytoplasmic tRNAs, playing a crucial role in RNA structure and function. Recent research has demonstrated that DUS3L also mediates dihydrouridine formation in certain mRNAs, thereby contributing to translational regulation. This enzyme's ability to modify both tRNAs and mRNAs highlights its significance in post-transcriptional gene regulation and RNA biology. The selected fragment (283-650) represents a computationally optimized stable domain suitable for investigating the enzymatic mechanisms and structural features of this important RNA-modifying enzyme.