Recombinant TGDS protein (His tag)

Catalog Number	549168
Species	Human
Expression System	E. coli
Accession	O95455
Molecular Weight	Predictes a molecular mass of 41.87 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	1-350
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 1-350 aa (O95455) 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 dTDP-D-glucose 4,6-dehydratase (EC 4.2.1.46) Fragment (1-350) - A high-quality, stable protein fragment ideal for structural biology and enzymatic studies. This 350-amino acid construct represents a soluble and functionally relevant portion of the TGDS gene product, optimized for research applications requiring reliable protein performance. dTDP-D-glucose 4,6-dehydratase (EC 4.2.1.46), encoded by the TGDS gene in Homo sapiens, is an essential enzyme in carbohydrate metabolism pathways. This enzyme catalyzes the dehydration of dTDP-D-glucose to form dTDP-4-dehydro-6-deoxy-D-glucose, a key intermediate in the biosynthesis of various sugar nucleotides and complex carbohydrates. The provided fragment (amino acids 1-350) was computationally designed to maintain structural integrity and solubility, enabling detailed investigation of the enzyme's catalytic mechanism and structural features without the complications associated with full-length protein expression and purification.