Recombinant FCL protein (His tag)

Catalog Number	534282
Synonyms	GDP-4-keto-6-deoxy-D-mannose-3,5-epimerase-4-reductase
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	G5EER4
Gene ID	187512
Molecular Weight	Predictes a molecular mass of 37.21 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	1-315
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-315 aa (G5EER4) 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 GDP-L-fucose synthase (EC 1.1.1.271) fragment from Caenorhabditis elegans, encompassing amino acids 1-315. This fragment represents a stable and soluble unit of the enzyme that catalyzes the NADP-dependent conversion of GDP-4-dehydro-6-deoxy-D-mannose to GDP-fucose, making it ideal for structural and biochemical studies. GDP-L-fucose synthase, also known as GDP-4-keto-6-deoxy-D-mannose-3,5-epimerase-4-reductase, is a bifunctional enzyme that catalyzes the two-step NADP-dependent conversion of GDP-4-dehydro-6-deoxy-D-mannose to GDP-fucose through both epimerase and reductase activities. This enzyme plays a crucial role in fucose metabolism, generating GDP-fucose which serves as a key substrate for fucosylation reactions in various biological processes. The enzyme's activity has been experimentally validated as referenced in PubMed:16650000.