Recombinant FCL protein (His tag)

Catalog Number	538032
Synonyms	GDP-4-keto-6-deoxy-D-mannose-3,5-epimerase-4-reductase; Protein FX; Red cell NADP(H)-binding protein; Short-chain dehydrogenase/reductase family 4E member 1
Species	Human
Expression System	E. coli
Accession	Q13630
Molecular Weight	Predictes a molecular mass of 37.55 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 38 kDa band.

Product Information

Sequence Region	1-321
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-321 aa (Q13630) 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	This recombinant protein product features a stable and soluble fragment (amino acids 1-321) of Human GDP-L-fucose synthase (GFUS), a key enzyme in the biosynthesis of GDP-fucose. Designed for structural and biochemical studies, this fragment retains essential functional domains and is optimized for high solubility and experimental reliability. GDP-L-fucose synthase, also known as GDP-4-keto-6-deoxy-D-mannose-3,5-epimerase-4-reductase, catalyzes the two-step NADP-dependent conversion of GDP-4-dehydro-6-deoxy-D-mannose to GDP-fucose. This reaction involves both epimerase and reductase activities, playing a critical role in fucosylation processes essential for glycoprotein and glycolipid synthesis. The enzyme's function is vital in cellular recognition and signaling pathways, with implications in immune response and developmental biology, as supported by its annotation in UniProt (Q13630) and research citations.