Recombinant GDPP1 protein (His tag)

Catalog Number	549802
Species	Human
Expression System	E. coli
Accession	Q6ZNW5
Molecular Weight	Predictes a molecular mass of 44.02 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band.

Product Information

Sequence Region	1-385
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1-385 aa (Q6ZNW5) 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 GDP-D-glucose phosphorylase 1 (EC 2.7.7.78) fragment (amino acids 1-385) is a highly pure and stable protein product designed for structural and biochemical studies. This fragment, derived from the GDPGP1 gene, retains the enzyme's specificity and efficiency in phosphorylating GDP-D-glucose, offering researchers a reliable tool for investigating cellular glucose metabolism regulation. GDP-D-glucose phosphorylase 1, encoded by the GDPGP1 gene in Homo sapiens, is a specific and highly efficient enzyme responsible for phosphorylating GDP-D-glucose, thereby playing a critical role in regulating intracellular levels of this sugar nucleotide. This regulation is essential for various metabolic pathways, as indicated by its functional characterization (ECO:0000269|PubMed:21507950). The protein is localized in the cytoplasm, where it actively participates in nucleotide-sugar metabolism, influencing processes such as glycosylation and energy homeostasis. The provided recombinant fragment (1-385) encompasses the full functional domain, enabling detailed analysis of its enzymatic activity and structural properties without compromising biological relevance.