Recombinant ALG6 protein (His tag)

Catalog Number	533790
Synonyms	Dolichyl-P-Glc:Man9GlcNAc2-PP-dolichyl glucosyltransferase; Asparagine-linked glycosylation protein 6 homolog; Dol-P-Glc:Man(9)GlcNAc(2)-PP-Dol alpha-1,3-glucosyltransferase
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q9VKX7
Gene ID	34409
Molecular Weight	Predictes a molecular mass of 14.66 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	1-113
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 1-113 aa (Q9VKX7) 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 product is a recombinant fragment (amino acids 1-113) of the Probable dolichyl pyrophosphate Man9GlcNAc2 alpha-1,3-glucosyltransferase from Drosophila melanogaster. It is designed for structural and biochemical studies, offering a stable and soluble unit of this key enzyme involved in N-linked glycosylation. The full-length protein, encoded by the gny gene, functions as a glucosyltransferase that adds the first glucose residue to the lipid-linked oligosaccharide precursor (Man9GlcNAc2-PP-Dol) using dolichyl phosphate glucose as a substrate, a critical step in the N-linked glycosylation pathway. This process is essential for proper protein folding and quality control in the endoplasmic reticulum. The enzyme is localized to the endoplasmic reticulum membrane as a multi-pass membrane protein and has been implicated in cuticle differentiation, highlighting its biological significance in development. The provided function is supported by experimental evidence from PubMed:21199819.