Recombinant ALG12 protein (His tag)

Catalog Number	534895
Synonyms	7; 2; Asparagine-linked glycosylation protein 12 homolog; Dolichyl-P-Man:Man(7)GlcNAc(2)-PP-dolichyl-alpha-1,6-mannosyltransferase; Mannosyltransferase ALG12 homolog
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q9VH78
Gene ID	41191
Molecular Weight	Predictes a molecular mass of 15.66 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	355-479
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 355-479 aa (Q9VH78) 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 Drosophila melanogaster Alg12 protein fragment (residues 355-479) representing a stable and soluble unit of the Dol-P-Man:Man(7)GlcNAc(2)-PP-Dol alpha-1,6-mannosyltransferase. This fragment is ideal for structural studies and biochemical assays investigating asparagine-linked glycosylation pathways. The full-length Alg12 protein is a key mannosyltransferase in the dolichol-linked oligosaccharide biosynthetic pathway, which produces glycan precursors for protein asparagine (N)-glycosylation. It specifically catalyzes the addition of the eighth mannose residue in an alpha-1,6 linkage to Man(7)GlcNAc(2)-PP-dolichol, forming Man(8)GlcNAc(2)-PP-dolichol within the endoplasmic reticulum lumen. As a multi-pass membrane protein localized to the endoplasmic reticulum membrane, Alg12 plays an essential role in the sequential assembly of oligosaccharides that are subsequently transferred to nascent proteins by oligosaccharyltransferases, making it critical for proper protein glycosylation and function.