Recombinant ALG9 protein (His tag)

Catalog Number	534012
Synonyms	Dolichyl-P-Man:Man6GlcNAc2-PP-dolichol alpha-1,2-mannosyltransferase; Dolichyl-P-Man:Man8GlcNAc2-PP-dolichol alpha-1,2-mannosyltransferase
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q9VBV8
Gene ID	43031
Molecular Weight	Predictes a molecular mass of 22.24 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	453-623
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 453-623 aa (Q9VBV8) 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 Alpha-1,2-mannosyltransferase Alg9 (EC 2.4.1.259/2.4.1.261) fragment from Drosophila melanogaster, corresponding to residues 453-623. This fragment is a stable, soluble unit optimized for structural and biochemical studies of N-glycosylation pathway enzymes. Alpha-1,2-mannosyltransferase Alg9 is a key enzyme in the N-glycosylation pathway, catalyzing the transfer of mannose residues to lipid-linked oligosaccharide precursors. It plays critical roles in Drosophila melanogaster development, including glycosylation of the TNF receptor Grnd to regulate ligand affinity, maintenance of normal epithelial growth and architecture, and suppression of JNK-dependent intestinal stem cell proliferation. The full-length protein is localized to the endoplasmic reticulum membrane as a multi-pass membrane protein, highlighting its integral role in early glycosylation processes.