Recombinant ALG11 protein (His tag)

Catalog Number	535249
Synonyms	3; 2; Asparagine-linked glycosylation protein 11 homolog
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	P53993
Gene ID	176032
Molecular Weight	Predictes a molecular mass of 51.35 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 52 kDa band.

Product Information

Sequence Region	37-470
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 37-470 aa (P53993) 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 fragment of GDP-Man:Man(3)GlcNAc(2)-PP-Dol alpha-1,2-mannosyltransferase (EC 2.4.1.131) from Caenorhabditis elegans, encompassing residues 37-470. This fragment is engineered for stability and solubility, making it an ideal tool for structural studies and biochemical assays investigating asparagine-linked glycosylation pathways. The full-length protein, encoded by the algn-11 gene (UniProt ID: P53993), is a key enzyme in the dolichol-linked oligosaccharide biosynthetic pathway essential for protein N-glycosylation. It functions as a GDP-Man:Man(3)GlcNAc(2)-PP-Dol alpha-1,2-mannosyltransferase, catalyzing the cytoplasmic addition of the fourth and fifth mannose residues to the growing oligosaccharide chain on the endoplasmic reticulum membrane, producing Man(5)GlcNAc(2)-PP-dolichol. This core oligosaccharide serves as a precursor for subsequent glycosylation steps mediated by enzymes like ALG3. The protein is localized to the endoplasmic reticulum membrane as a single-pass membrane protein, underscoring its role in early glycan assembly critical for cellular protein processing and function.