Recombinant PGP14 protein (His tag)

Catalog Number	533618
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	G5EG61
Gene ID	181416
Molecular Weight	Predictes a molecular mass of 32.16 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 32 kDa band.

Product Information

Sequence Region	1052-1327
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1052-1327 aa (G5EG61) 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 P-glycoprotein 14 (EC 7.6.-.-) Fragment (aa 1052-1327) from Caenorhabditis elegans, encompassing the ABC transporter 2 domain. This high-purity fragment is engineered for targeted studies of lipid barrier formation and xenobiotic defense mechanisms in research applications. P-glycoprotein 14, encoded by the pgp-14 gene in Caenorhabditis elegans, functions in establishing a polar lipid barrier within the pharyngeal cuticle to prevent small molecule penetration. It likely exports polar lipids during cuticle development, providing protection against xenobiotic compounds, and operates in conjunction with sphingomyelin synthase sms-5. The protein localizes to the apical cell membrane as a multi-pass membrane protein, underscoring its role in cellular defense and lipid transport. The provided fragment (aa 1052-1327) includes the complete ABC transporter 2 domain, enabling focused investigation into these specific functional aspects.