Recombinant PIGH protein (His tag)

Catalog Number	540299
Synonyms	Phosphatidylinositol-glycan biosynthesis class H protein; PIG-H
Species	Human
Expression System	E. coli
Accession	Q14442
Molecular Weight	Predictes a molecular mass of 22.74 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	1-188
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 1-188 aa (Q14442) 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 Human PIG-H Protein Fragment (1-188) is a high-quality, soluble protein fragment derived from the Phosphatidylinositol N-acetylglucosaminyltransferase subunit H. This fragment is expertly designed for structural and biochemical studies, enabling researchers to investigate key aspects of GPI biosynthesis with reliability and precision. The full-length PIG-H protein, encoded by the PIGH gene in Homo sapiens, is a critical component of the glycosylphosphatidylinositol-N-acetylglucosaminyltransferase (GPI-GnT) complex. This complex catalyzes the initial step in glycosylphosphatidylinositol (GPI) biosynthesis by transferring N-acetylglucosamine from UDP-N-acetylglucosamine to phosphatidylinositol. GPI anchors are essential for attaching proteins to cell membranes, influencing processes such as signal transduction and cell adhesion. PIG-H is localized in the cytoplasm, where it contributes to this fundamental pathway, with its role supported by experimental evidence (PubMed:9463366, 16162815). The provided recombinant fragment (residues 1-188) represents a stable, soluble unit ideal for elucidating structural and functional mechanisms in GPI assembly.