Recombinant PIGO protein (His tag)

Catalog Number	540844
Synonyms	Phosphatidylinositol-glycan biosynthesis class O protein; PIG-O; hGPCR43
Species	Human
Expression System	E. coli
Accession	Q8TEQ8
Molecular Weight	Predictes a molecular mass of 48.85 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band.

Product Information

Sequence Region	25-456
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 25-456 aa (Q8TEQ8) 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	This recombinant protein product features a stable and soluble fragment (residues 25-456) of human GPI ethanolamine phosphate transferase 3, catalytic subunit (PIG-O), designed for structural and biochemical studies. As a key enzyme in glycosylphosphatidylinositol (GPI)-anchor biosynthesis, this fragment enables researchers to investigate the catalytic mechanisms of ethanolamine phosphate transfer in membrane protein systems. The full-length PIG-O protein functions as the catalytic subunit of the ethanolamine phosphate transferase 3 complex in the endoplasmic reticulum membrane. It plays a critical role in the tenth step of GPI-anchor biosynthesis by transferring ethanolamine phosphate from phosphatidylethanolamine to the third mannose residue of the GPI intermediate (H6 to H7 conversion). This enzymatic activity is essential for proper attachment of GPI anchors to various proteins, which mediates their association with cell membranes. The protein's localization to the endoplasmic reticulum membrane as a multi-pass membrane protein underscores its importance in intracellular protein processing and membrane biology.