Recombinant GPAA1 protein (His tag)

Catalog Number	544094
Synonyms	GAA1 protein homolog; hGAA1; Glycosylphosphatidylinositol anchor attachment 1 protein; GPI anchor attachment protein 1
Species	Human
Expression System	E. coli
Accession	O43292
Molecular Weight	Predictes a molecular mass of 38.02 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 38 kDa band.

Product Information

Sequence Region	42-370
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 42-370 aa (O43292) 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 (amino acids 42-370) of the human GPI-anchor transamidase component GPAA1. Designed for structural and biochemical studies, this fragment enables researchers to investigate the mechanisms of GPI-anchor attachment in protein biosynthesis, offering a reliable tool for advancing understanding of post-translational modifications. The full-length GPAA1 protein is a critical component of the glycosylphosphatidylinositol-anchor (GPI-anchor) transamidase complex in humans, which catalyzes the linkage between proproteins and GPI-anchors during GPI-anchored protein biosynthesis. This process is essential for anchoring proteins to cell membranes, influencing their localization and function. GPAA1 is localized to the endoplasmic reticulum membrane as a multi-pass membrane protein, where it binds GPI-anchors directly, underscoring its role in cellular trafficking and membrane biology. The provided fragment has been computationally optimized to represent a stable, soluble region for experimental applications, supporting research into GPI-anchor mechanisms without the complexities of the full membrane-bound protein.