Recombinant QPCTL protein (His tag)

Catalog Number	543757
Synonyms	Golgi-resident glutaminyl-peptide cyclotransferase; isoQC; gQC
Species	Human
Expression System	E. coli
Accession	Q9NXS2
Molecular Weight	Predictes a molecular mass of 38.35 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 38 kDa band.

Product Information

Sequence Region	56-382
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 56-382 aa (Q9NXS2) 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 Glutaminyl-peptide cyclotransferase-like protein (isoQC/gQC), residues 56-382, is a high-purity fragment engineered for stability and solubility, ideal for investigating pyroglutamyl peptide biosynthesis in structural and biochemical studies. The full-length Glutaminyl-peptide cyclotransferase-like protein (EC 2.3.2.5), encoded by the QPCTL gene, is responsible for the biosynthesis of pyroglutamyl peptides, as supported by experimental evidence. It localizes to the Golgi apparatus membrane as a single-pass type I membrane protein, where it facilitates post-translational modifications critical for peptide maturation and function. This enzyme plays a key role in cellular processes by generating pyroglutamate residues, which can influence peptide stability and activity.