Recombinant GPHB5 protein (His tag)

Catalog Number	545363
Synonyms	Thyrostimulin subunit beta
Species	Human
Expression System	E. coli
Accession	Q86YW7
Molecular Weight	Predictes a molecular mass of 13.39 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	25-130
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 25-130 aa (Q86YW7) 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 product is a recombinant fragment of the human Glycoprotein hormone beta-5 (Thyrostimulin subunit beta), encompassing amino acids 25-130. This stable and soluble fragment is ideal for structural studies and functional assays investigating thyroid-stimulating hormone receptor interactions and cAMP signaling pathways. The full-length Glycoprotein hormone beta-5, encoded by the GPHB5 gene, functions as a heterodimeric glycoprotein hormone in complex with GPHA2. It binds and activates the thyroid-stimulating hormone receptor (TSHR), resulting in increased cAMP production, and plays a central role in regulating thyroid cell metabolism. The protein is secreted, indicating its role in extracellular signaling and endocrine regulation.