Recombinant GBB1 protein (His tag)

Catalog Number	542477
Synonyms	I; S; T; Transducin beta chain 1
Species	Human
Expression System	E. coli
Accession	P62873
Molecular Weight	Predictes a molecular mass of 38.90 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	2-340
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 2-340 aa (P62873) 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 GNB1 Protein Fragment (residues 2-340) is a high-purity, soluble preparation of the Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-1, also known as Transducin beta chain 1. This fragment is designed for structural and biochemical studies, offering a stable and functional unit that retains key domains essential for G protein signaling modulation. Guanine nucleotide-binding proteins (G proteins) are critical modulators and transducers in transmembrane signaling systems. The beta-1 subunit, encoded by the GNB1 gene, plays a fundamental role in G protein function: it is required for GTPase activity, facilitates the exchange of GDP for GTP, and mediates interactions between G proteins and their effector molecules. This subunit is integral to numerous signaling pathways, as evidenced by extensive research linking it to cellular communication and regulatory processes. The provided recombinant fragment encompasses the structured domain of the protein, enabling detailed investigation of its mechanistic contributions to G protein-coupled signaling without the complexities of the full-length protein.