Recombinant PDE3B protein (His tag)

Catalog Number	544919
Synonyms	CGIPDE1; CGIP1; Cyclic GMP-inhibited phosphodiesterase B; CGI-PDE B
Species	Human
Expression System	E. coli
Accession	Q13370
Molecular Weight	Predictes a molecular mass of 41.37 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	667-1016
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 667-1016 aa (Q13370) 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 high-quality recombinant fragment of human cGMP-inhibited 3',5'-cyclic phosphodiesterase 3B (PDE3B), spanning residues 667-1016. It is designed for structural and biochemical studies, offering a stable and soluble unit ideal for investigating the enzyme's regulatory mechanisms in cyclic nucleotide signaling. The full-length PDE3B protein is a dual-specificity cyclic nucleotide phosphodiesterase that hydrolyzes both cAMP and cGMP, key second messengers involved in numerous physiological processes. It plays critical roles in angiogenesis by inhibiting the cAMP-dependent guanine nucleotide exchange factor RAPGEF3 and downstream phosphatidylinositol 3-kinase gamma-mediated signaling, and it regulates cardiac contractility by modulating cAMP levels in cardiocytes. PDE3B is localized to the membrane as a multi-pass membrane protein, underscoring its involvement in membrane-associated signaling pathways. The provided fragment represents a computationally selected region optimized for experimental applications, enabling focused studies on PDE3B's functional domains.