Recombinant PDE4B protein (His tag)

Catalog Number	540197
Synonyms	DPDE4; PDE32; cAMP-specific phosphodiesterase 4B
Species	Human
Expression System	E. coli
Accession	Q07343
Molecular Weight	Predictes a molecular mass of 40.04 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 43 kDa band.

Product Information

Sequence Region	326-658
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 326-658 aa (Q07343) 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	Introducing the recombinant fragment of human 3',5'-cyclic-AMP phosphodiesterase 4B (PDE4B), encompassing residues 326-658. This 333-amino acid fragment is engineered for stability and solubility, making it an ideal tool for structural studies, enzymatic assays, and biochemical research targeting cAMP hydrolysis mechanisms. The full-length PDE4B enzyme hydrolyzes the second messenger cAMP, a critical regulator of numerous physiological processes. It plays a significant role in mediating central nervous system effects of various therapeutic agents, including antidepressants, anti-asthmatic, and anti-inflammatory drugs. In its native context, specific isoforms such as PDE4B5 localize to the cytoplasm and cell membrane, underscoring its involvement in key signaling pathways. This recombinant fragment provides a focused approach to investigate PDE4B's functional domains without the complexities of the full-length protein.