Recombinant PDE8A protein (His tag)

Catalog Number	541821
Species	Human
Expression System	E. coli
Accession	O60658
Molecular Weight	Predictes a molecular mass of 30.97 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 32 kDa band.

Product Information

Sequence Region	69-326
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 69-326 aa (O60658) 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 High Affinity cAMP-Specific and IBMX-Insensitive 3',5'-Cyclic Phosphodiesterase 8A (PDE8A) Fragment (aa 69-326) – a highly purified protein fragment encompassing the PAS domain, ideal for investigating cAMP hydrolysis and domain-specific functions in cellular signaling pathways. The full-length PDE8A protein, encoded by the PDE8A gene in Homo sapiens, functions as a high-affinity cAMP-specific phosphodiesterase that hydrolyzes cyclic AMP (cAMP), a critical second messenger regulating numerous physiological processes. It plays roles in maintaining basal cAMP levels and in cAMP-mediated regulation of germ cell development. Additionally, PDE8A interacts with RAF1, reducing its inhibitory phosphorylation and enhancing RAF1-dependent ERK signaling in response to EGF, thereby promoting cell survival under stress conditions such as hydrogen peroxide or staurosporine exposure. This recombinant fragment focuses on the functional PAS domain, enabling targeted studies of its contributions to cAMP metabolism and signaling mechanisms.