Recombinant PDE1C protein (His tag)

Catalog Number	540288
Synonyms	Cam-PDE 1C; Hcam3
Species	Human
Expression System	E. coli
Accession	Q14123
Molecular Weight	Predictes a molecular mass of 36.74 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	153-457
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 153-457 aa (Q14123) 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 (residues 153-457) of the Dual specificity calcium/calmodulin-dependent 3',5'-cyclic nucleotide phosphodiesterase 1C (PDE1C) from Homo sapiens. It represents a stable and soluble unit ideal for structural studies and biochemical assays investigating cAMP and cGMP signaling pathways. The full-length PDE1C protein is a calmodulin-dependent cyclic nucleotide phosphodiesterase that hydrolyzes both cAMP and cGMP, key second messengers regulating numerous physiological processes. It exhibits high affinity for both nucleotides and plays critical roles in modulating cAMP signal duration in sensory cilia during odorant stimulation, contributing to action potential generation. PDE1C also regulates smooth muscle cell proliferation and is implicated in maintaining the stability of growth factor receptors such as PDGFRB. Subcellular localization studies indicate its presence in lysosomes, suggesting potential involvement in lysosome-related signaling or degradation pathways.