Recombinant Human PDE2A/CGS-PDE Protein (aa 215-900, His Tag)

Catalog Number: PKSH030756

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Species	Human
Source	Baculovirus-Insect Cells-derived Human PDE2A/CGS-PDE protein Glu 215-His 900,
	with an C-terminal His
Calculated MW	80.0 kDa
Observed MW	66 kDa
Accession	O00408-1
Bio-activity	Not validated for activity
Properties	
Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}C$ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% glycerol
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants
	before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.
Data	
KDa MK	R
116	
66.2	
45.0	

> 90 % as determined by reducing SDS-PAGE.

35.0

25.0

18.4 14.4

Background

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cGMP-dependent 3',5'-cyclic phosphodiesterase, also known as cyclic GMP-stimulated phosphodiesterase and PDE2A, is a peripheral membrane protein which belongs to thecyclic nucleotide phosphodiesterase family and PDE2 subfamily. Phosphodiesterases (PDEs) comprise a family of enzymes that regulate the levels of cyclic nucleotides, key second messengers that mediate a diverse array of functions. Phosphodiesterases (PDEs) modulate signaling by cyclic nucleotides in diverse processes such as cardiac contractility, platelet aggregation, lipolysis, glycogenolysis, and smooth muscle contraction. PDE2A is an evolutionarily conserved cGMP-stimulated cAMP and cGMP PDE. PDE2A contains twoGAF domains. PDE2A is expressed in brain and to a lesser extent in heart, placenta, lung, skeletal muscle, kidney and pancreas. PDE2A is a cyclic nucleotide phosphodiesterase with a dual-specificity for the second messengers cAMP and cGMP, which are key regulators of many important physiological processes. PDE2A is involved in the regulation of blood pressure and fluid homeostasis by the atrial natriuretic peptide (ANP), making PDE2-type enzymes important targets for drug discovery.