Recombinant Human PDE1C Protein (His &GST Tag)

Catalog Number: PKSH030595

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

Description	
Species	Human
Source	Baculovirus-Insect Cells-derived Human PDE1C protein Met 1-Glu634, with an N-
	terminal His & GST
Calculated MW	100 kDa
Observed MW	97 kDa
Accession	Q8TAE4
Bio-activity	Not validated for activity
Properties	
Purity	> 85 % 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°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, 3mM DTT
	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

> 85 % as determined by reducing SDS-PAGE.

35.0

25.0 18.4 14.4

Background

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PDE1C belongs to the cyclic nucleotide phosphodiesterase family, PDE1 subfamily. Phosphodiesterases (PDEs) are a family of related phosphohydrolyases that selectively catalyze the hydrolysis of 3' cyclic phosphate bonds in adenosine and/or guanine 3',5' cyclic monophosphate (cAMP and/or cGMP). They regulate the cellular levels, localization and duration of action of these second messengers by controlling the rate of their degradation. PDEs are expressed ubiquitously, with each subtype having a specific tissue distribution. These enzymes are involved in many signal transduction pathways and their functions include vascular smooth muscle proliferation and contraction, cardiac contractility, platelet aggregation, hormone secretion, immune cell activation, and they are involved in learning and memory. PDE1C has a high affinity for both cAMP and cGMP. It is expressed in several tissues, including brain and heart. As a cyclic nucleotide phosphodiesterase, PDE1C has a dual-specificity for the second messengers cAMP and cGMP.