Recombinant Protein Technical Manual

Recombinant Human PDE3A Protein (His & GST Tag)

RPES4795

Product Data:

Product SKU: RPES4795

Size: 20µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: Q14432

Protein Information:

Molecular Mass:	81.7 kDa
AP Molecular Mass:	93 kDa
Tag:	N-His & GST
Bio-activity:	
Purity:	> 90 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg as determined by the LAL method.
Storage:	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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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% gly, 3mM DTT
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	CGI-PDE;CGI-PDE-A;CGI-PDEA

Background:

PDE3A belongs to the phosphodiesterase family. 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. PDE3A has high affinity for both cAMP and cGMP and shows competitive inhibition of the cAMP hydrolytic activity by cGMP. It plays a critical role in regulating intracellular levels of cAMP and cGMP.