

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

Catalog Number: 13031-H08B



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CGS-PDE; cGSPDE; PDE2A1; PED2A4; CGS-PDE; cGSPDE

Protein Construction:

A DNA sequence encoding the amino acids (Glu 215-His 900) of human PDE2A (O00408-1) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ala 18

Molecular Mass:

The recombinant human PDE2A consists of 706 amino acids and predicts a molecular mass of 80.0 kDa. It migrates as an approximately 66 kDa band in SDS-PAGE in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% gly

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

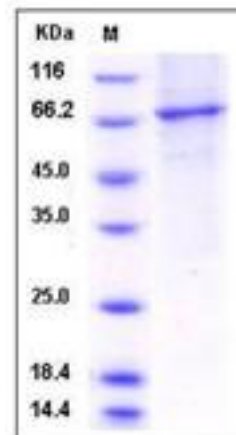
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

cGMP-dependent 3',5'-cyclic phosphodiesterase, also known as cyclic GMP-stimulated phosphodiesterase and PDE2A, is a peripheral membrane protein which belongs to the cyclic 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 two GAF 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.

References

- 1.Iffland,A. et al., 2005, Biochemistry. 44 (23):8312-25
- 2.de Oliveira,S.K. et al., 2007,J Biol Chem. 282 (18):13656-63.
- 3.Stephenson,D.T. et al., 2009, J Histochem Cytochem. 57 (10):933-49.

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