Phosphodiesterase 3A from Human, Recombinant

Cat. No. NATE-0521

Lot. No. (See product label)

Introduction

Description	PDE3 is a phosphodiesterase. The PDEs belong to at least eleven related gene families, which are different in their primary structure, substrate affinity, responses to effectors, and regulation mechanism. Most of the PDE families are composed of more than one gene. PDE3 is clinically significant because of its role in regulating heart muscle, vascular smooth muscle and platelet aggregation. PDE3 inhibitors have been developed as pharmaceuticals, but their use is limited by arrhythmic effects and they can increase mortality in some applications.
Applications	Human phosphodiesterase 3A has been used in a study to assess its role for the unique 44-amino acid insert. Human phosphodiesterase 3A has also been used in a study to investigate this gene's expression using a baculovirus expression system in insect cells.
Synonyms	cyclic 3',5'-mononucleotide phosphodiesterase; PDE; cyclic 3',5'-nucleotide phosphodiesterase; cyclic 3',5'-phosphodiesterase; 3',5'-nucleotide phosphodiesterase; 3':5'-cyclic nucleotide 5'-nucleotidohydrolase; 3',5'-cyclonucleotide phosphodiesterase; cyclic nucleotide phosphodiesterase; 3', 5'-cyclic nucleoside monophosphate phosphodiesterase; 3':5'-monophosphate phosphodiesterase (cyclic CMP); cytidine 3':5'-monophosphate phosphodiesterase (cyclic CMP); cyclic 3',5-nucleotide monophosphate phosphodiesterase; nucleoside 3',5'-cyclic phosphate diesterase; nucleoside-3',5-monophosphate phosphodiesterase; EC 3.1.4.17; PDE3A

Product Information

Species	Human
Source	Sf9 cells
Form	Supplied as a solution in 25 mM Tris-HCl, pH 8.0, 100 mM NaCl, 0.05% TWEEN-20, 50% glycerol, 20 mM glutathione, and 3 mM DTT
EC Number	EC 3.1.4.17
CAS No.	9040-59-9
Molecular Weight	193.3 kDa
Pathway	G alpha (s) signalling events, organism-specific biosystem; GPCR downstream signaling, organism-specific biosystem; Hemostasis, organism-specific biosystem; Insulin signaling pathway, organism-specific biosystem; Insulin signaling pathway, conserved biosystem; Morphine addiction, organism-specific biosystem; Morphine addiction, conserved biosystem
Function	3,5-cyclic-AMP phosphodiesterase activity; cAMP binding; cGMP-inhibited cyclic-nucleotide phosphodiesterase activity; hydrolase activity; metal ion binding; phosphoric diester hydrolase activity
Unit Definition	One unit will convert 1.0 picomole of 3',5'-cAMP to 5'-AMP per minute at pH 7.4 at 37°C.

Storage and Shipping Information

Storage	−70°C

Storage	-70 °C