Creative Enzymes®

Native Bovine Phosphodiesterase, 3',5'-cyclic-nucleotide-specific

Cat. No. NATE-0515

Lot. No. (See product label)

Introduction

Description Hydrolyzes the 3',5'-phosphodiester bond in cyclic nucleotide monophosphates, such as cAMP and cGMP, to the corresponding nucleotide 5'-monophosphate.

Applications May be used to assay the protein activator, calmodulin.

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

Product Information

Species Bovine

Source Bovine brain

Form Lyophilized powder containing Tris-HCl buffer salts and lactose

EC Number EC 3.1.4.17

CAS No. 9040-59-9

Molecular Weight mol wt ~60 kDa

Activity 15-30 units/mg protein (in the presence of 0.03 mM Ca2+ and a saturating level (10 units per ml) of calmodulin (P2277))

Buffer Reconstitute with 50% glycerol. The total activated units of enzyme will remain constant for at least 5 days when stored at −20°C. However, the calmodulin-deficient activity may increase up to 200%. Both the activated and calmodulin-deficient activity may decrease approximately 30% in 24 hours if stored at 4°C.

Pathway Ca-dependent events, organism-specific biosystem; calmodulin binding; protein binding

Unit Definition One unit will hydrolyze 1.0 µmole of 3',5'-cyclic-AMP to 5'-AMP per min at pH 7.5 at 30°C.

Usage and Packaging

Package Package size based on activated units

Storage and Shipping Information

Storage −20°C