

Native Bovine Phosphodiesterase II

Cat. No. NATE-0518

Lot. No. (See product label)

Introduction

Description	Phosphodiesterase (PDE) is any enzyme that is used to breaks phosphodiester bonds. The enzyme acts
	on poly (A), poly (U), and poly (I). Native DNA and poly (C) are quite resistant to the action of this
	enzyme. Hydrolyzes RNA, RNA-Core, 3'-alkyl-and 3'-aryl-nucleoside phosphates, and
	polydeoxyribonucleotides with 3'-phosphate end groups to 3'-mononucleotides. Polynucleotides having
	5'-phosphomonoester end groups are not attacked.

- **Applications**Phosphodiesterase (PDE) is any enzyme that is used to breaks phosphodiester bonds. It is a membrane-
bound glycoprotein that is used to catalyze the hydrolysis of various nucleotide polyphosphates.
Phosphodiesterase II has been used in the enzymatic digestions of purified proteins such as the P8-dGMP
complex. Bovine spleen phosphodiesterase has been used to digest N-cadherin. The product has been
used in the characterization of polynucleotide chain length, base composition, and identity of terminal
nucleotide. The enzyme has also been used in excision of pyridyloxobutyl (POB) base adducts from DNA.
Furthermore, it has been used along with micr oc occal endonuclease to hydrolyze purified DNA to 3-
nucleoside monophosphates.
- *Synonyms* 3'-exonuclease; spleen phosphodiesterase; 3'-nucleotide phosphodiesterase; phosphodiesterase II; spleen exonuclease; EC 3.1.16.1; 9068-54-6; PDE2

Product Information

Species	Bovine
Source	Bovine spleen
Form	lyophilized powder
EC Number	EC 3.1.16.1
CAS No.	9068-54-6
Activity	> 5.0 units/mg protein
Pathway	Morphine addiction, organism-specific biosystem; Morphine addiction, conserved biosystem; Purine metabolism, organism-specific biosystem; Purine metabolism, conserved biosystem
Unit Definition	One unit will produce acid soluble nucleotides equivalent to a Δ A260 of 16 in 30 min at pH 6.5 at 37°C, in a 2.0 mL reaction mixture. Substrate: RNA-Core. Actual A260 is measured on the supernatant after precipitation of the unhydrolyzed RNA with uranyl acetate-perchloric acid reagent.

Storage and Shipping Information

Storage –20°C