Creative Enzymes®

Native Canavalia ensiformis β-N-Acetylglucosaminidase

Cat. No. NATE-0780

Lot. No. (See product label)

Introduction

Description	This enzyme, sometimes called β-N-acetylhexosaminidase, is reported to liberate terminal β-linked N-acetylglucosamine and N-acetylgalactosamine from a variety of substrates. The activity of β-N-actylglucosaminidase may be determined with the chromogenic substrate p-nitrophenyl-N-acetyl-β-D-glucosaminide. β-N-actylglucosaminidase hydrolyzes the terminal nonreducing N-acetyl-D-hexosamine residues. This enzyme contains two predominant isozymes, Hex A, a heterodimer, and Hex B, a homodimer. N-acetylglucosamine, acetamide, N-2-acetamido-2-deoyglucosylamine, N-acetylnojirimycin, and N-acetyldeoxynojirmycin are known inhibitors.
Applications	β-N-acetylglucosaminidase is a lysosomal enzyme used to hydrolyze N-acetyl-β-D-glucosaminides and N-acetyl-β-Dgalactosaminides. It is used in chemoenzymatic synthesis of oligosaccharides based on their effective transglycosylation of β-GlcNAc and β-GalNAcc. It may be a useful tool to study Alzheimer's Disease 1. Acetylglucosaminidase from Canavalia ensiformis has been used to study enzymic detachment of biofilms.
Synonyms	hexosaminidase; β-acetylaminodeoxyhexosidase; N-acetyl-β-D-hexosaminidase; N-acetyl-beta-hexosaminidase; β-hexosaminidase; β-acetylhexosaminidinase; β-D-N-acetylhexosaminidase; β-N-acetyl-D-hexosaminidase; β-N-acetylglucosaminidase; hexosaminidase A; N-acetylhexosaminidase; β-D-hexosaminidase; EC 3.2.1.52; 9012-33-3

Product Information

Source	Canavalia ensiformis
Form	ammonium sulfate suspension. Suspension in 2.5 M (NH4)2SO4, pH 7.0
EC Number	EC 3.2.1.52
CAS No.	9012-33-3
Activity	> 15 units/mg protein
Unit Definition	One unit will hydrolyze 1.0 μmole of p-nitrophenyl N-acetyl-β-D-glucosaminide to p-nitrophenol and N-acetyl-D-glucosamine per min at pH 5.0 at 25°C.

Storage and Shipping Information

Storage	2-8°C