## Native Canavalia ensiformis $\beta$-N-Acetylglucosaminidase

Cat. No. NATE-0780
Lot. No. (See product label)

## Introduction

Description This enzyme, sometimes called $\beta$ - N -acetylhexosaminidase, is reported to liberate terminal $\beta$-linked N acetylglucosamine and N -acetylgalactosamine from a variety of substrates. The activity of $\beta-\mathrm{N}-$ actylglucosaminidase may be determined with the chromogenic substrate p-nitrophenyl-N-acetyl- $\beta$-Dglucosaminide. $\beta$-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

$\beta$-N-acetylglucosaminidase is a lysosomal enzyme used to hydrolyze N -acetyl- $\beta$-D-glucosaminides and N -acetyl- $\beta$-Dgalactosaminides. It is used in chemoenzymatic synthesis of oligosaccharides based on their effective transglycosylation of $\beta$-GlcNAc and $\beta$-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; $\beta$-acetylaminodeoxyhexosidase; $N$-acetyl- $\beta$-D-hexosaminidase; $N$-acetyl-betahexosaminidase; $\beta$-hexosaminidase; $\beta$-acetylhexosaminidinase; $\beta$-D-N-acetylhexosaminidase; $\beta$ - $N$-acetyl-D-hexosaminidase; $\beta$ - $N$-acetylglucosaminidase; hexosaminidase $A$; $N$-acetylhexosaminidase; $\beta$-Dhexosaminidase; EC 3.2.1.52; 9012-33-3

## Product Information

Source Canavalia ensiformis
Form ammonium sulfate suspension. Suspension in $2.5 \mathrm{M}(\mathrm{NH} 4) 2 \mathrm{SO} 4, \mathrm{pH} 7.0$

EC Number EC 3.2.1.52
CAS No. 9012-33-3

Activity $>15$ units/mg protein
Unit One unit will hydrolyze $1.0 \mu$ mole of $p$-nitrophenyl $N$-acetyl- $\beta$-D-glucosaminide to p-nitrophenol and $N$ Definition acetyl-D-glucosamine per min at pH 5.0 at $25^{\circ} \mathrm{C}$.

Storage and Shipping Information
Storage $\quad 2-8^{\circ} \mathrm{C}$

