Creative Enzymes®

β-N-Acetylhexosaminidase from Streptococcus pyogenes, Recombinant

Cat. No. NATE-1220

Lot. No. (See product label)

Introduction

Description This enzyme releases non-reducing terminal β1-2, β1-3, β1-4 and β1-6 linked N-acetylglucosamine from complex carbohydrates. When incubated with oligosaccharides at low concentrations (<50 mU/ml) the enzyme can differentiate between GlcNAcβ1-2Man, GlcNAcβ1-4Man and GlcNAcβ1-6Man linkages. Under such conditions, the enzyme cleaves essentially only β1-2 linked GlcNAc, with two provisos. Firstly, β1-2 GlcNAc is not hydrolyzed if the mannose to which it is substituted has a substitution at C-6. Thus, the enzyme is useful for the analysis of tri-antennary oligosaccharides. Secondly, if the β-linked mannose of the conserved pentasaccharide core is substituted with a "bisecting" GlcNAc then only the β1-2 linked GlcNAc linked to mannose on the α1-3 arm is cleaved. At higher concentrations of the enzyme, β1-4 and β1-6 linked GlcNAc may also be hydrolyzed.

Synonyms beta-N-acetyl-D-hexosaminide; N-acetylhexosaminohydrolase; β-N-Acetylhexosaminidase; N-Acetyl-β-D-glucosaminidase, β-N-Acetylglucosaminidase

Product Information

Source Streptococcus pyogenes M1 GAS SF370

Form Supplied as a freeze-dried powder.

EC Number EC 3.2.1.52

CAS No. 9012-33-3

Molecular Weight 67487.4 Da

Purity > 95 % as judged by SDS-PAGE

Activity 5.56 U/mg

Optimum pH ~ 7.6

Optimum temperature 50°C (stable up to 50°C)

Unit Definition One unit is defined as the amount of enzyme required to release 1μmol of pNP from pNP-N-acetyl-β-D-glucosaminide (1 mM) per minute in 10 mM HEPES buffer, pH 7.6, at 37°C, as measured at 410 nm.

Usage and Packaging

Preparation Instructions Reconstitute by the addition of 0.25 mL of H2O (to give a final concentration of 10.78 mg/mL (59.92 U/mL) with respect to OGlcNAcase). Between uses, store at -20°C.

Storage and Shipping Information

Storage Store at -20°C