Creative Enzymes®

Δ-4,5–Glycuronidase from Flavobacterium heparinum

Cat. No. NATE-1942

Lot. No. (See product label)

Introduction

Description The Δ-4,5-Glycuronidase acts on the non-sulphated, unsaturated termini of disaccharides, tetrasaccharides, etc., produced either directly by lyase action on a glycosaminoglycan or by the action of the 2-O-sulphatase on an unsaturated disaccharide, tetrasaccharide, etc.

Synonyms Δ-4,5–Glycuronidase; Glycuronidase

Product Information

Source Flavobacterium heparinum (ATCC 13125)

Form The enzyme is stabilised with 0.2% BSA, 0.22 um sterile-filtered and dispensed into sterile vials. To preserve high activity, the enzyme solution is stored frozen at -60°C and is supplied world-wide as a frozen solution.

EC Number EC 3.2.1-

Contaminants NMT 0.1% (nominally)

Specificity The enzyme is one of two ‘secondary’ enzymes (the other being 2-O-sulphatase) involved in the degradation of glycosaminoglycans by the Flavobacterium enzyme consortium. In combination with 2-O-sulphatase, they are used to characterise heparin fragments after treatment with heparinase. The two enzymes attack the unsaturated disaccharides and oligosaccharides produced from glycosaminoglycans by the lyases, the 'primary' enzymes. The two enzymes work in strict sequence to raze the terminal, 2-O-sulphated unsaturated moiety from disaccharides, tetrasaccharides, etc. The 2-O-sulphatase operates first, followed by the Δ-4,5-glycuronidase, to produce a hexosamine monosaccharide from a disaccharide, or an oddnumbered oligosaccharide from an even-numbered oligosaccharide.

Unit Definition One unit will form 1 micromole of hydrolysed product (monosaccharide and keto-acid) per minute at pH 7.0 at 25°C using heparin unsaturated disaccharide IV-A (GEH1008) as substrate.

Storage and Shipping Information

Storage Store frozen at -20 or below upon receipt. Avoid repeated freezethawing.