Creative Enzymes®

2-O-Sulphatase from Flavobacterium heparinum

Cat. No. NATE-1943

Lot. No. (See product label)

Introduction

Description The 2-O-sulphatase acts on 2-O-sulphated Δ4,5-unsaturated termini of disaccharides, tetrasaccharides, etc., produced by lyase action on a glycosaminoglycan.

Synonyms 2-O-Sulphatase; Sulphatase

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 3.1.6.-

Molecular Weight 41.8 kDa

Specificity The enzyme is one of two ‘secondary’ enzymes (the other being Δ-4,5-glycuronidase) involved in the degradation of glycosaminoglycans by the Flavobacterium enzyme consortium. 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 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 de-2-O-sulphated I-P (II-P, ΔUA→GlcNCOEt-6S) per minute at pH 7.0 at 25°C using heparin unsaturated disaccharide I-P (GE-H1013, ΔUA-2S→GlcNCOEt-6S) as substrate.