

## 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  $\Delta$ 4,5-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  $\mu$ m sterile-filtered and dispensed into sterile vials. To preserve high activity, the enzyme solution is stored frozen at  $-60^{\circ}\text{C}$  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  $\Delta$ -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,  $\Delta$ UA $\rightarrow$ GlcNCOEt-6S) per minute at pH 7.0 at  $25^{\circ}\text{C}$  using heparin unsaturated disaccharide I-P (GE-H1013,  $\Delta$ UA-2S $\rightarrow$ GlcNCOEt-6S) as substrate.