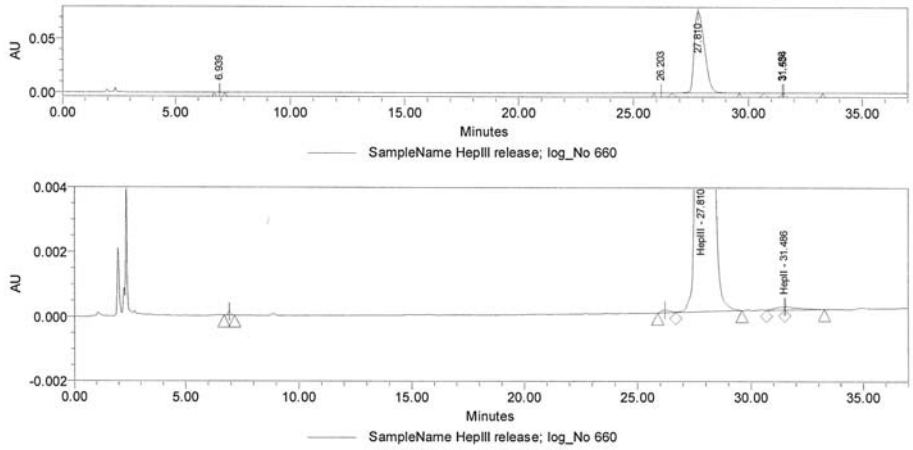
Data Sheet

Heparinase III | Research Grade

PN 50-012
50-012-001

Synonyms	Heparin sulfate eliminase; heparitinase I
Source	*Flavobacterium heparinum* (recombinant)
EC Number	4.2.2.8
CAS Number	37290-86-1
Catalyzed Reaction	The enzyme cleaves selectively, via an elimination mechanism, sulfated polysaccharide chains containing 1-4 linkages between hexosamines and glucuronic acid residues. The reaction yields oligosaccharide products (mainly disaccharides) containing unsaturated uronic acids which can be detected by UV spectroscopy at 232 nm. The enzyme is active only towards heparan sulfate and does not cleave heparin or low molecular weight heparins.
Substrate Specificity	Heparan sulfate. Heparinase III cleaves heparan sulfate exclusively, and does not cleave unfractionated heparin or low molecular weight heparins.
Properties	• Molecular weight: 73,202 Da • Isoelectric point: 9.6 – 9.9 • pH optimum for activity: 7 – 8 • pH range for activity: 5.5 – 9 • Optimal testing temperature range: 20 °C – 37 °C • Optimal storage temperature: – 70 °C
Purity	≥95 % by reversed phase HPLC analysis.



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Specific Activity

>45 IU/mg.

One international unit (IU) is defined as the amount of enzyme that will liberate 1.0 μmole unsaturated oligosaccharides from heparan sulfate per minute at 30 °C and pH 7.5.

Stability

- PN 50-012 (vial of 0.5 IU): Expiration is 30 months from manufacturing date frozen at -70 °C in aqueous buffer containing Sodium Chloride, Sodium Phosphate and Sucrose 5%.
- PN 50-012-001 (vial of 0.1 IU): Expiration is 30 months from manufacturing date frozen at -70 °C in aqueous buffer containing Sodium Chloride, Sodium Phosphate and Sucrose 5%.

Applications

- As a research reagent (glycosaminoglycan degradation).
- For the preparation of disaccharides of heparan sulfate and the preparation of oligosaccharide libraries.

Availability

A proprietary expression system for *F. heparinum* and the fermentation and isolation processes developed by IBEX Pharmaceuticals allow the production of large quantities of high purity product.

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