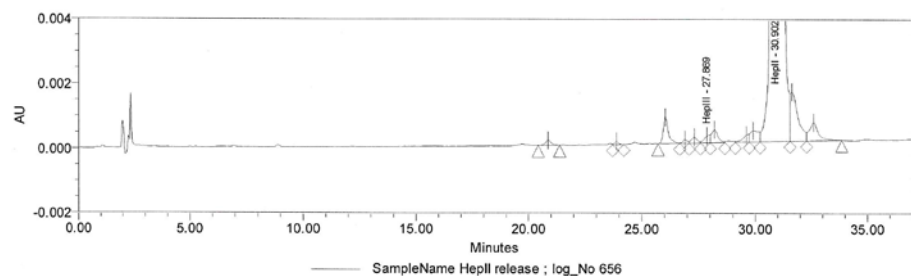
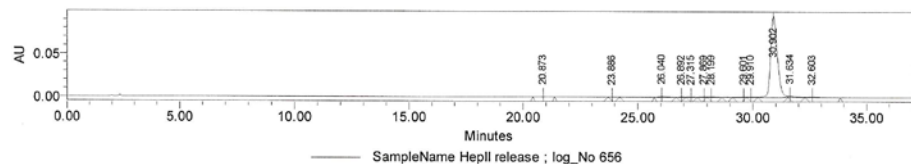


Heparinase II Research Grade

PN 50-011
50-011-001

Synonyms	Heparitinase
Source	<i>Flavobacterium heparinum</i> (recombinant)
EC Number	None assigned
CAD Number	149371-12-0
Catalyzed Reaction	The enzyme cleaves, via an elimination mechanism, sulfated polysaccharide chains containing 1-4 linkages between hexosamines and uronic acid residues (both iduronic 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 cleaves both heparin and heparan sulfate, with the heparan sulfate activity being about twice as high as the heparin activity.
Substrate Specificity	Heparin, heparan sulfate.
Properties	<ul style="list-style-type: none">• Molecular weight: 85,765 Da• Isoelectric point: 9.1 – 9.2• pH optimum for activity: 7 - 8• pH range for activity: 5 – 9• Optimal testing temperature range: 20 °C – 37 °C• Optimal storage temperature: – 70 °C
Purity	≥90 % by reversed phase HPLC analysis.



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Specific Activity

≥ 5 IU/mg – using heparan sulfate as substrate

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

Stability

- PN 50-011 (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 50-011-001 (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 research reagent (glycosaminoglycan degradation).
- For the preparation of di- and oligo-saccharides of heparin and 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.

References

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- "Heparinase-II-Catalyzed Degradation of N-Propionylated Heparin". C.F. Moffat, W.F. Long, M.W. McLean and F.B. Williamson in *Archives of Biochemistry and Biophysics* (1997) 338 (2): 201-206.
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- US Patents 5,681,733 and 5,919,693 "Nucleic Acid sequences and Expression Systems for Heparinase II and Heparinase III derived from *Flavobacterium heparinum*".

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