

## New England Biolabs Certificate of Analysis

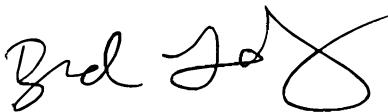
**Product Name:** *Bacteroides Heparinase III*  
**Catalog Number:** *P0737S*  
**Concentration:** *700 U/ml*  
**Unit Definition:** *One unit is defined as the amount of enzyme that will liberate 1.0 μmol unsaturated oligosaccharides from heparan sulfate per minute at 30°C and pH 7.0 in a total reaction volume of 100 μl.*  
**Packaging Lot Number:** *10058019*  
**Expiration Date:** *11/2020*  
**Storage Temperature:** *-80°C*  
**Storage Conditions:** *100 mM NaCl, 20 mM Tris-HCl, 1 mM EDTA, 5 mM CaCl<sub>2</sub>, (pH 7.5 @ 25°C)*  
**Specification Version:** *PS-P0737S/L v1.0*

| Bacteroides Heparinase III Component List |  |            |                      |
|---|--|------------|----------------------|
| NEB Part Number                           | Component Description                        | Lot Number | Individual QC Result |
| P0737SVIAL                                | Bacteroides Heparinase III                   | 10058018   | Pass                 |
| B0735SVIAL                                | Bacteroides Heparinase Reaction Buffer (10X) | 10052584   | Pass                 |

| Assay Name/Specification   | Lot # 10058019 |
|--|----------------|
| <p><b>Glycosidase Activity (β1-3 Galactosidase)</b><br/>           A 10 μl reaction in Heparinase Reaction Buffer containing 1 nM of fluorescently-labeled β-Galactosidase substrate (Galβ1-3GlcNAcβ1-4Galβ1-4Glc-AMC) and 1 unit of Bacteroides Heparinase III incubated for 20 hours at 30°C results in no detectable activity as determined by thin layer chromatography.</p>               | Pass           |
| <p><b>Glycosidase Activity (β1-4 Galactosidase)</b><br/>           A 10 μl reaction in Heparinase Reaction Buffer containing 1 nM of fluorescently-labeled β-Galactosidase substrate (Galβ1-4GlcNAcβ1-3Galβ1-4Glc-AMC) and 1 unit of Bacteroides Heparinase III incubated for 20 hours at 30°C results in no detectable activity as determined by thin layer chromatography.</p>               | Pass           |
| <p><b>Glycosidase Activity (β-N-Acetylgalactosaminidase)</b><br/>           A 10 μl reaction in Heparinase Reaction Buffer containing 1 nM of fluorescently-labeled β-N-Acetylgalactosaminidase substrate (GalNAcβ1-4Galβ1-4Glc-AMC) and 1 unit of Bacteroides Heparinase III incubated for 20 hours at 30°C results in no detectable activity as determined by thin layer chromatography.</p> | Pass           |

| Assay Name/Specification   | Lot # 10058019 |
|--|----------------|
| <p><b>Glycosidase Activity (<math>\beta</math>-N-Acetylglucosaminidase)</b><br/>A 10 <math>\mu</math>l reaction in Heparinase Reaction Buffer containing 1 nM of fluorescently-labeled <math>\beta</math>-N-Acetylglucosaminidase substrate (GlcNAc<math>\beta</math>1-4GlcNAc<math>\beta</math>1-4GlcNAc-AMC) and 1 unit of Bacteroides Heparinase III incubated for 20 hours at 30°C results in no detectable activity as determined by thin layer chromatography.</p> | <b>Pass</b>    |
| <p><b>Protease Activity (SDS-PAGE)</b><br/>A 20 <math>\mu</math>l reaction in 1X Heparinase Reaction Buffer containing 24 <math>\mu</math>g of a standard mixture of proteins and a minimum of 5 units of Bacteroides Heparinase III incubated for 20 hours at 37°C, results in no detectable degradation of the protein mixture as determined by SDS-PAGE with Coomassie Blue detection.</p>  | <b>Pass</b>    |
| <p><b>Protein Purity Assay (SDS-PAGE)</b><br/>Bacteroides Heparinase III is <math>\geq</math> 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>  | <b>Pass</b>    |
| <p><b>Sulfatase Activity (2-O)</b><br/>A 10 <math>\mu</math>l reaction in Heparinase Reaction Buffer containing 1 nM of fluorescently-labeled 2-O-Sulfatase substrate (<math>\Delta</math>UA2S-(1-4)-GlcNS6S-AMC) and 1 unit of Bacteroides Heparinase III incubated for 20 hours at 30°C results in no detectable activity as determined by thin layer chromatography.</p>  | <b>Pass</b>    |
| <p><b>Sulfatase and Uronidase Activity (N,6-O)</b><br/>A 10 <math>\mu</math>l reaction in Heparinase Reaction Buffer containing 1 nM of fluorescently-labeled N,6-O-Sulfatase substrate (<math>\Delta</math>UA-(1-4)-GlcNS6S-AMC) and 1 unit of Bacteroides Heparinase III incubated for 20 hours at 30°C results in no detectable activity as determined by thin layer chromatography.</p>  | <b>Pass</b>    |

This product has been tested and shown to be in compliance with all specifications.



Brad Landgraf  
Production Scientist  
23 Sep 2019



Michael Tonello  
Packaging Quality Control Inspector  
26 Nov 2019