

## New England Biolabs Certificate of Analysis

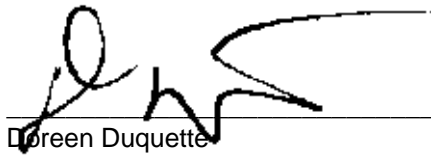
**Product Name:** BamHI  
**Catalog Number:** R0136M  
**Concentration:** 100,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.  
**Lot Number:** 10050243  
**Expiration Date:** 07/2021  
**Storage Temperature:** -20°C  
**Storage Conditions:** 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA  
**Specification Version:** PS-R0136T/M v1.0

| BamHI Component List |                              |            |                      |
|----------------------|------------------------------|------------|----------------------|
| NEB Part Number      | Component Description        | Lot Number | Individual QC Result |
| R0136M VIAL          | BamHI                        | 10050242   | Pass                 |
| B7203S VIAL          | NEBuffer™ 3.1                | 10041637   | Pass                 |
| B7024S VIAL          | Gel Loading Dye, Purple (6X) | 10043908   | Pass                 |

| Assay Name/Specification  | Lot # 10050243 |
|---|----------------|
| <b>Non-Specific DNase Activity (16 Hour)</b><br>A 50 µl reaction in NEBuffer 3.1 containing 1 µg of Lambda DNA and a minimum of 20 units of BamHI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | Pass           |
| <b>Blue-White Screening (Terminal Integrity)</b><br>A sample of pUC19 vector linearized with a 10-fold excess of BamHI, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in <1% white colonies.  | Pass           |
| <b>Endonuclease Activity (Nicking)</b><br>A 50 µl reaction in NEBuffer 3.1 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 60 Units of BamHI incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.              | Pass           |
| <b>Exonuclease Activity (Radioactivity Release)</b><br>A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 100 units of BamHI incubated for  | Pass           |

| Assay Name/Specification   | Lot # 10050243     |
|--|--------------------|
| <p>4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p> <p><b>Ligation and Recutting (Terminal Integrity)</b><br/>After a 20-fold over-digestion of Lambda DNA with BamHI, &gt;95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, &gt;95% can be recut with BamHI.</p> | <p><b>Pass</b></p> |

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



Doreen Duquette  
Production Scientist  
05 Apr 2019



Michael Tonello  
Packaging Quality Control Inspector  
23 Jul 2019