

New England Biolabs Certificate of Analysis

Product Name: BamHI
Catalog Number: R0136S
Concentration: 20,000 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.
Packaging Lot Number: 10074548
Expiration Date: 11/2021
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-R0136S/L v1.0

| BamHI Component List | | | |
|----------------------|------------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0136SVIAL | BamHI | 10058317 | Pass |
| B7203SVIAL | NEBuffer™ 3.1 | 10072160 | Pass |
| B7024SVIAL | Gel Loading Dye, Purple (6X) | 10075964 | Pass |

| Assay Name/Specification | Lot # 10074548 |
|---|----------------|
| Blue-White Screening (Terminal Integrity) 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 |
| Endonuclease Activity (Nicking) 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 |
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 100 units of BamHI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. | Pass |
| Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of Lambda DNA with BamHI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, | Pass |

| Assay Name/Specification | Lot # 10074548 |
|---|--------------------|
| <p>>95% can be recut with BamHI.</p> <p>Non-Specific DNase Activity (16 Hour) 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.</p> | <p>Pass</p> |

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



Penghua Zhang
Production Scientist
17 Jul 2020



Josh Hersey
Packaging Quality Control Inspector
17 Jul 2020