

## New England Biolabs Certificate of Analysis

**Product Name:** BtsI-v2  
**Catalog Number:** R0667L  
**Concentration:** 10,000 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:** 10154013  
**Expiration Date:** 06/2024  
**Storage Temperature:** -20°C  
**Storage Conditions:** 50 mM KCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 200 µg/ml BSA (pH 7.4 @ 25°C)  
**Specification Version:** PS-R0667S/L v3.0

| BtsI-v2 Component List |                       |            |                      |
|------------------------|-----------------------|------------|----------------------|
| NEB Part Number        | Component Description | Lot Number | Individual QC Result |
| R0667LVIAL             | BtsI-v2               | 10154012   | Pass                 |
| B6004SVIAL             | rCutSmart™ Buffer     | 10150374   | Pass                 |

| Assay Name/Specification  | Lot # 10154013 |
|---|----------------|
| <b>Protein Purity Assay (SDS-PAGE)</b><br>BtsI-v2 is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.  | Pass           |
| <b>Ligation and Recutting (Terminal Integrity)</b><br>After a 10-fold over-digestion of Lambda DNA with BtsI-v2, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, ~75% can be recut with BtsI-v2.   | Pass           |
| <b>Non-Specific DNase Activity (16 Hour)</b><br>A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda DNA and a minimum of 10 units of BtsI-v2 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>Exonuclease Activity (Radioactivity Release)</b><br>A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 50 units of BtsI-v2 incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.    | Pass           |

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|--|--------------------|
| <p><b>Functional Testing (15 minute Digest)</b><br/>A 50 µl reaction in CutSmart<sup>®</sup> Buffer containing 1 µg of Lambda DNA and 1 µl of BtsI-v2 incubated for 15 minutes at 37°C results in complete digestion as determined by agarose gel electrophoresis.</p> | <p><b>Pass</b></p> |

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

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Penghua Zhang  
Production Scientist  
14 Jun 2022



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Erin Varney  
Packaging Quality Control Inspector  
14 Jun 2022