

New England Biolabs Certificate of Analysis

Product Name: BssSI-v2
Catalog Number: R0680S
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: 10154926
Expiration Date: 06/2024
Storage Temperature: -20°C
Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 500 µg/ml BSA, (pH 7.4 @ 25°C)
Specification Version: PS-R0680S/L v2.0

| BssSI-v2 Component List | | | |
|-------------------------|-----------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0680SVIAL | BssSI-v2 | 10154924 | Pass |
| B6004SVIAL | rCutSmart™ Buffer | 10150374 | Pass |

| Assay Name/Specification | Lot # 10154926 |
|---|----------------|
| <p>Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of Lambda DNA with BssSI-v2, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with BssSI-v2.</p> | Pass |
| <p>Non-Specific DNase Activity (16 hour) A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda DNA and a minimum of 10 units of BssSI-v2 incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. NOTE: although no nuclease degradation is detected under these conditions, extended incubations and/or high concentrations of this enzyme may result in star activity. See the product FAQ for recommended reaction conditions for this enzyme.</p> | Pass |
| <p>Protein Purity Assay (SDS-PAGE) BssSI-v2 is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p> | Pass |
| <p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and</p> | Pass |

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|--|--------------------|
| <p>double-stranded [³H] E. coli DNA and a minimum of 100 units of BssSI-v2 incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p> <p>Functional Testing (15 minute Digest) A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda DNA and 1 µl of BssSI-v2 incubated for 15 minutes at 37°C results in complete digestion as determined by agarose gel electrophoresis.</p> | <p>Pass</p> |

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

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16 Jun 2022



Erin Varney
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16 Jun 2022