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## New England Biolabs Certificate of Analysis

Product Name: BstAPI
Catalog Number: R0654L
Concentration: 5,000 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 60°C in a total reaction volume of 50 μl.

Packaging Lot Number: 10128748
Expiration Date: 11/2023
Storage Temperature: -20°C

Storage Conditions: 50 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50%

Glycerol, 200 μg/ml BSA

Specification Version: PS-R0654S/L v1.0

| BstAPI Component List  |                       |            |                      |  |
|------------------------|-----------------------|------------|----------------------|--|
| <b>NEB Part Number</b> | Component Description | Lot Number | Individual QC Result |  |
| R0654LVIAL             | BstAPI                | 10128750   | Pass                 |  |
| B6004SVIAL             | rCutSmart™ Buffer     | 10124441   | Pass                 |  |

| Assay Name/Specification  | Lot # 10128749 |
|---|----------------|
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 5 Units of BstAPI incubated for 16 hours at 60°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | Pass           |
| Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with BstAPI, ~75% 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 BstAPI.   | Pass           |
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 25 units of BstAPI incubated for 4 hours at 60°C releases <0.1% of the total radioactivity.                | Pass           |

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.



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Penghua Zhang **Production Scientist** 12 Nov 2021

Michael Tonello

Packaging Quality Control Inspector 12 Nov 2021

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