

New England Biolabs Certificate of Analysis

Product Name: BsgI
Catalog Number: R0559S
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 37°C in a total volume of 50 µl.
Lot Number: 10043769
Expiration Date: 05/2021
Storage Temperature: -20°C
Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA
Specification Version: PS-R0559S/L v1.0

| BsgI Component List | | | |
|---------------------|----------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0559SVIAL | BsgI | 10043767 | Pass |
| B9003SVIAL | S-adenosylmethionine (SAM) | 10043902 | Pass |
| B7204SVIAL | CutSmart® Buffer | 10042965 | Pass |

| Assay Name/Specification | Lot # 10043769 |
|--|----------------|
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 15 Units of BsgI incubated for 16 hours at 37°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 5-fold over-digestion of Lambda DNA with BsgI, >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 BsgI. | Pass |
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 50 units of BsgI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. | Pass |

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



Jianying Luo
Production Scientist
03 May 2019



Michael Tonello
Packaging Quality Control Inspector
07 Jun 2019