

## New England Biolabs Certificate of Analysis

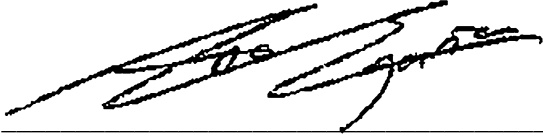
**Product Name:** *BsmI*  
**Catalog Number:** *R0134S*  
**Concentration:** *10,000 U/ml*  
**Unit Definition:** *One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 65°C in a total reaction volume of 50 µl.*  
**Packaging Lot Number:** *10241185*  
**Expiration Date:** *03/2026*  
**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-R0134S/L v1.0*

| BsmI Component List |                       |            |                      |
|---------------------|-----------------------|------------|----------------------|
| NEB Part Number     | Component Description | Lot Number | Individual QC Result |
| R0134SVIAL          | BsmI                  | 10235164   | Pass                 |
| B6004SVIAL          | rCutSmart™ Buffer     | 10235560   | Pass                 |

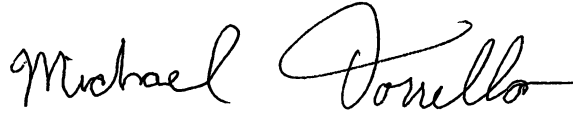
| Assay Name/Specification   | Lot # 10241185 |
|--|----------------|
| <b>Exonuclease Activity (Radioactivity Release)</b><br>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 100 units of BsmI incubated for 4 hours at 65°C releases <0.1% of the total radioactivity.   | <b>Pass</b>    |
| <b>Ligation and Recutting (Terminal Integrity)</b><br>After a 10-fold over-digestion of Lambda DNA with BsmI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 4 hours at 25°C. Of these ligated fragments, >95% can be recut with BsmI.   | <b>Pass</b>    |
| <b>Non-Specific DNase Activity (16 Hour)</b><br>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pBR322 DNA and a minimum of 30 units of BsmI incubated for 16 hours at 65°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | <b>Pass</b>    |

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

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25 Apr 2024



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