

## New England Biolabs Certificate of Analysis

**Product Name:** BstUI  
**Catalog Number:** R0518S  
**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 60°C in 50 µl assay buffer.  
**Packaging Lot Number:** 10129295  
**Expiration Date:** 09/2023  
**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-R0518S/L v1.0

BstUI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0518SVIAL	BstUI	10121591	Pass
B6004SVIAL	rCutSmart™ Buffer	10121391	Pass

Assay Name/Specification	Lot # 10129295
<p><b>Exonuclease Activity (Radioactivity Release)</b>            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 BstUI incubated for 4 hours at 60°C releases &lt;0.1% of the total radioactivity.</p>	Pass
<p><b>Ligation and Recutting (Terminal Integrity)</b>            After a 20-fold over-digestion of Lambda DNA with BstUI, ~50% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, &gt;95% can be recut with BstUI.</p>	Pass
<p><b>Non-Specific DNase Activity (16 Hour)</b>            A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda DNA and a minimum of 100 Units of BstUI incubated for 16 hours at 60°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Protein Purity Assay (SDS-PAGE)</b>            BstUI is &gt;95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.</p>	Pass

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

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15 Nov 2021



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