

## New England Biolabs Certificate of Analysis

**Product Name:** BpuEI  
**Catalog Number:** R0633S  
**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 reaction volume of 50 µl.  
**Packaging Lot Number:** 10092328  
**Expiration Date:** 12/2022  
**Storage Temperature:** -20°C  
**Storage Conditions:** 300 mM NaCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 0.32 mM S-adenosylmethionine (SAM), 50% Glycerol, 500 µg/ml BSA (pH 7.4 @ 25°C)  
**Specification Version:** PS-R0633S v3.0

BpuEI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0633SVIAL	BpuEI	10092327	Pass
B7204SVIAL	CutSmart® Buffer	10091458	Pass

Assay Name/Specification	Lot # 10092328
<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 5 units of BpuEI incubated for 4 hours at 37°C releases &lt;0.5% of the total radioactivity.</p>	Pass
<p><b>Ligation and Recutting (Terminal Integrity)</b>            After a 2-fold over-digestion of Lambda DNA with BpuEI, &gt;95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, ~50% can be recut with BpuEI.</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 15 Units of BpuEI incubated for 16 hours at 37°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>            BpuEI 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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07 Jan 2021



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