NEW ENGLAND BioLabs Inc.
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240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
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info@neb.com

# New England Biolabs
# Certificate of Analysis

| | |
|---|---|
| *Product Name:* | *PpuMI* |
| *Catalog Number:* | *R0506S* |
| *Concentration:* | *10,000 U/ml* |
| *Unit Definition:* | *One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA (HindIII digest) in 1 hour at 37°C in a total reaction volume of 50 µl.* |
| *Lot Number:* | *10021254* |
| *Expiration Date:* | *11/2020* |
| *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-R0506S/L v1.0* |

| **PpuMI Component List** | | | |
|---|---|---|---|
| **NEB Part Number** | **Component Description** | **Lot Number** | **Individual QC Result** |
| R0506SVIAL | PpuMI | 10020324 | **Pass** |
| B7204SVIAL | CutSmart® Buffer | 10021118 | **Pass** |

| **Assay Name/Specification** | **Lot # 10021254** |
|---|---|
| **Endonuclease Activity (Nicking)**<br>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 30 units of PpuMI incubated for 4 hours at 37ºC results in <20% conversion to the nicked form as determined by agarose gel electrophoresis. | **Pass** |
| **Exonuclease Activity (Radioactivity Release)**<br>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 100 units of PpuMI incubated for 4 hours at 37ºC releases <0.1% of the total radioactivity. | **Pass** |
| **Ligation and Recutting (Terminal Integrity)**<br>After a 20-fold over-digestion of pBC4 DNA with PpuMI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16ºC. Of these ligated fragments, >95% can be recut with PpuMI. | **Pass** |
| **Non-Specific DNase Activity (16 Hour)**<br>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda-HindIII DNA and a minimum of 100 Units of PpuMI incubated for 16 hours at 37ºC results in a DNA | **Pass** |

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| Assay Name/Specification | Lot # 10021254 |
|---|---|
| pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | |

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

Tony Spear-Alfonso
Production Scientist
01 Oct 2018

Michael Tonello
Packaging Quality Control Inspector
01 Nov 2018