

## New England Biolabs Certificate of Analysis

**Product Name:** PmlI  
**Catalog Number:** R0532S  
**Concentration:** 20,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg Lambda DNA (HindIII digest) DNA in 1 hour at 37°C in a total reaction volume of 50 µl.  
**Lot Number:** 10050478  
**Expiration Date:** 07/2020  
**Storage Temperature:** -20°C  
**Storage Conditions:** 25 mM KCl, 25 mM Tris-HCl (pH 7.5), 1 mM DTT, 0.5 mM EDTA, 50% Glycerol, 200 µg/ml BSA  
**Specification Version:** PS-R0532S/L v2.0

| PmlI Component List |                       |            |                      |
|---------------------|-----------------------|------------|----------------------|
| NEB Part Number     | Component Description | Lot Number | Individual QC Result |
| R0532SVIAL          | PmlI                  | 10049551   | Pass                 |
| B7204SVIAL          | CutSmart® Buffer      | 10046081   | Pass                 |

| Assay Name/Specification   | Lot # 10050478 |
|--|----------------|
| <b>Endonuclease Activity (Nicking)</b><br>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 20 units of PmlI incubated for 4 hours at 37°C results in <20% conversion to the nicked form as determined by agarose gel electrophoresis.            | Pass           |
| <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 PmlI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. | Pass           |
| <b>Ligation and Recutting (Terminal Integrity)</b><br>After a 10-fold over-digestion of Lambda HindIII DNA with PmlI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with PmlI.                                  | Pass           |
| <b>Non-Specific DNase Activity (16 Hour)</b><br>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda HindIII DNA and a minimum of 100 Units of PmlI incubated for 16 hours at 37°C results in a DNA pattern  | Pass           |

| Assay Name/Specification  | Lot # 10050478 |
|---|----------------|
| 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.



Stephanie Cornelio  
Production Scientist  
16 Jul 2019



Jay Minichiello  
Packaging Quality Control Inspector  
09 Aug 2019