

## 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:** 10027205  
**Expiration Date:** 11/2019  
**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                  | 10027206   | Pass                 |
| B7204SVIAL          | CutSmart® Buffer      | 10021118   | Pass                 |

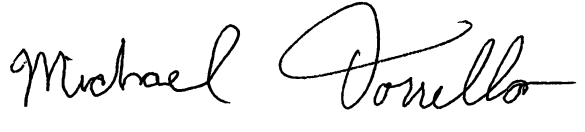
| Assay Name/Specification   | Lot # 10027205 |
|--|----------------|
| <p><b>Non-Specific DNase Activity (16 Hour)</b><br/>           A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda HindIII DNA and a minimum of 100 Units of PmlI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p> | Pass           |
| <p><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 &lt;20% conversion to the nicked form as determined by agarose gel electrophoresis.</p>                    | Pass           |
| <p><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 &lt;0.1% of the total radioactivity.</p>           | Pass           |
| <p><b>Ligation and Recutting (Terminal Integrity)</b><br/>           After a 10-fold over-digestion of Lambda HindIII DNA with PmlI, &gt;95% of the DNA</p>  | Pass           |

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|---|----------------|
| fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with PmlI. |                |

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  
08 Nov 2018