

## New England Biolabs Certificate of Analysis

**Product Name:** *PmeI*  
**Catalog Number:** *R0560L*  
**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 37°C in a total reaction volume of 50 µl.*  
**Lot Number:** *10028126*  
**Expiration Date:** *11/2020*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *100 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-R0560S/L v1.0*

| PmeI Component List |                              |            |                      |
|---------------------|------------------------------|------------|----------------------|
| NEB Part Number     | Component Description        | Lot Number | Individual QC Result |
| R0560LVIAL          | PmeI                         | 10028126   | Pass                 |
| B7204SVIAL          | CutSmart® Buffer             | 10021118   | Pass                 |
| B7024SVIAL          | Gel Loading Dye, Purple (6X) | 10021128   | Pass                 |

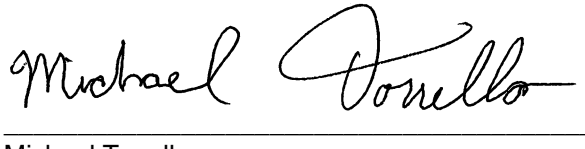
| Assay Name/Specification   | Lot # 10028126 |
|--|----------------|
| <b>Non-Specific DNase Activity (16 Hour)</b><br>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 10 Units of PmeI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | Pass           |
| <b>Blue-White Screening (Terminal Integrity)</b><br>A sample of pNEB193 vector linearized with a 10-fold excess of PmeI, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in <1% white colonies.  | Pass           |
| <b>Endonuclease Activity (Nicking)</b><br>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 Units of PmeI incubated for 4 hours at 37°C results in <10% 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 PmeI incubated for 4  | Pass           |

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|--|--------------------|
| <p>hours at 37°C releases &lt;0.1% of the total radioactivity.</p> <p><b>Ligation and Recutting (Terminal Integrity)</b><br/>After a 10-fold over-digestion of Lambda DNA with PmeI, &gt;95% 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 PmeI.</p> | <p><b>Pass</b></p> |

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  
06 Nov 2018