

New England Biolabs Certificate of Analysis

Product Name: PmeI
Catalog Number: R0560S
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: 10052628
Expiration Date: 04/2021
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 |
| R0560SVIAL | PmeI | 10043211 | Pass |
| B7204SVIAL | CutSmart® Buffer | 10046087 | Pass |
| B7024SVIAL | Gel Loading Dye, Purple (6X) | 10043910 | Pass |

| Assay Name/Specification | Lot # 10052628 |
|--|----------------|
| Blue-White Screening (Terminal Integrity) 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 |
| Endonuclease Activity (Nicking) 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 |
| Exonuclease Activity (Radioactivity Release) 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 PmeI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. | Pass |
| Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with PmeI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, | Pass |

| Assay Name/Specification | Lot # 10052628 |
|---|--------------------|
| <p>>95% can be recut with PmeI.</p> <p>Non-Specific DNase Activity (16 Hour) 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.</p> | <p>Pass</p> |

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



Jianying Luo
Production Scientist
25 Apr 2019



Jay Minichiello
Packaging Quality Control Inspector
22 Aug 2019