

New England Biolabs Certificate of Analysis

Product Name: PmlI
Catalog Number: R0532L
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.
Packaging Lot Number: 10270914
Expiration Date: 10/2025
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
R0532LVIAL	PmlI	10259594	Pass
B6004SVIAL	rCutSmart™ Buffer	10259597	Pass

Assay Name/Specification	Lot # 10270914
Endonuclease Activity (Nicking) 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
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 PmlI 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 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
Non-Specific DNase Activity (16 Hour) 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 # 10270914
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.

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Nancy Considine
Production Scientist
03 Dec 2024



Michael Tonello
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09 Dec 2024