

New England Biolabs Certificate of Analysis

Product Name: Pcil
Catalog Number: R0655L
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of pXba DNA in 1 hour at 37°C in a total reaction volume of 50 µl.
Lot Number: 10026054
Expiration Date: 10/2020
Storage Temperature: -20°C
Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA
Specification Version: PS-R0655S/L v1.0

| Pcil Component List | | | |
|---------------------|------------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0655LVIAL | Pcil | 10026053 | Pass |
| B7203SVIAL | NEBuffer™ 3.1 | 10021113 | Pass |
| B7024SVIAL | Gel Loading Dye, Purple (6X) | 10021137 | Pass |

| Assay Name/Specification | Lot # 10026054 |
|--|----------------|
| Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 Units of Pcil 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 NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 100 units of Pcil 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 pXba DNA with Pcil, >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 Pcil. | Pass |
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of pXba DNA and a minimum of 50 Units of Pcil incubated for 16 hours at 37°C results in a DNA pattern free of | Pass |

| Assay Name/Specification | Lot # 10026054 |
|---|----------------|
| detectable nuclease degradation as determined by agarose gel electrophoresis. | |

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



Jianying Luo
Production Scientist
22 Oct 2018



Michael Tonello
Packaging Quality Control Inspector
14 Jan 2019