

New England Biolabs Certificate of Analysis

Product Name: PI-PspI
Catalog Number: R0695S
Concentration: 5,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to cleave 1 µg of pAKR7 XmnI-linearized Control Plasmid in 1 hour at 65°C in a total reaction volume of 50 µl.
Lot Number: 10015689
Expiration Date: 05/2020
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-R0695S/L v1.0

| Assay Name/Specification | Lot # 10015689 |
|--|----------------|
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer PI-PspI containing 1 µg of pAKR7-XmnI DNA and a minimum of 5 Units of PI-PspI incubated for 16 hours at 65°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | Pass |
| Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer PI-PspI containing 1 µg of supercoiled PhiX174 DNA and a minimum of 15 Units of PI-PspI incubated for 4 hours at 65°C results in <20% conversion to the nicked form as determined by agarose gel electrophoresis. | Pass |
| Ligation and Recutting (Terminal Integrity) After a 5-fold over-digestion of pAKR7-XmnI DNA with PI-PspI, ~75% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, ~75% can be recut with PI-PspI. | Pass |
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer PI-PspI containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 50 units of PI-PspI incubated for 4 hours at 65°C releases <0.1% of the total radioactivity. | Pass |

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



Penghua Zhang
Production Scientist
11 Jul 2018



Josh Hersey
Packaging Quality Control Inspector
11 Jul 2018