

## 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:** 10007484  
**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

PI-PspI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0695SVIAL	PI-PspI	10007379	Pass
N0421SVIAL	pAKR7 XmnI-linearized Control Plasmid	0021805	Pass
B9001SVIAL	Purified BSA	0071705	Pass
B0695SVIAL	NEBuffer™ PI-PspI	10010763	Pass

Assay Name/Specification	Lot # 10007484
<b>Non-Specific DNase Activity (16 Hour)</b> 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
<b>Endonuclease Activity (Nicking)</b> 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
<b>Ligation and Recutting (Terminal Integrity)</b> 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
<b>Exonuclease Activity (Radioactivity Release)</b>	Pass

Assay Name/Specification	Lot # 10007484
A 50 µl reaction in NEBuffer PI-PspI containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> 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.	

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



Jianying Luo  
Production Scientist  
16 May 2018



Michael Tonello  
Packaging Quality Control Inspector  
06 Jun 2018