

## 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.  
**Packaging Lot Number:** 10189644  
**Expiration Date:** 05/2025  
**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

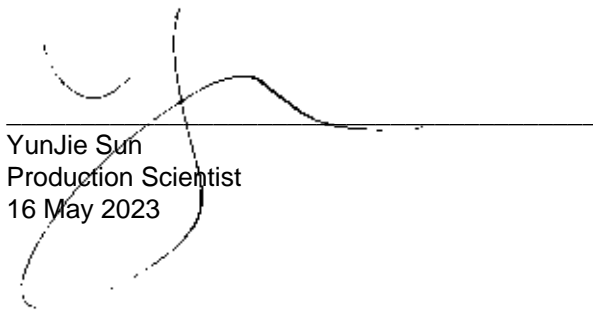
PI-PspI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0695SVIAL	PI-PspI	10189643	Pass
N0421SVIAL	pAKR7 XmnI-linearized Control Plasmid	10193206	Pass
B9200SVIAL	Recombinant Albumin, Molecular Biology G	10173665	Pass
B0695SVIAL	NEBuffer™ PI-PspI	10189645	Pass

Assay Name/Specification	Lot # 10189644
<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>Exonuclease Activity (Radioactivity Release)</b> 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.	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>Non-Specific DNase Activity (16 Hour)</b>	Pass

Assay Name/Specification	Lot # 10189644
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.	

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

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