

New England Biolabs Certificate of Analysis

Product Name: PaqCI®
Catalog Number: R0745L
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in rCutSmart Buffer incubated for 1 hour at 37°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10268659
Expiration Date: 05/2026
Storage Temperature: -20°C
Storage Conditions: 50 mM NaCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 200 µg/ml rAlbumin, (pH 7.4 @ 25°C)
Specification Version: PS-R0745S/L v2.0

PaqCI® Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
S0532LVIAL	PaqCI® Activator	10261192	Pass
R0745LVIAL	PaqCI®	10260978	Pass
B6004SVIAL	rCutSmart™ Buffer	10256012	Pass

Assay Name/Specification	Lot # 10268659
Endonuclease Activity (Nicking) A 50 µl reaction in rCutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 30 units of PaqCI® 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 rCutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 100 units of PaqCI® 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 DNA with PaqCI® , >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 PaqCI® .	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in rCutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of	Pass

Assay Name/Specification	Lot # 10268659
<p>30 units of PaqCI® incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p> <p>Protein Purity Assay (SDS-PAGE) PaqCI® is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	<p>Pass</p>

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.



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Production Scientist
21 Nov 2024



Michael Tonello
Packaging Quality Control Inspector
21 Nov 2024