

New England Biolabs Certificate of Analysis

Product Name: Cac8I
Catalog Number: R0579L
Concentration: 5,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10183076
Expiration Date: 03/2024
Storage Temperature: -80°C
Storage Conditions: 150 mM KCl , 10 mM Tris-HCl (7.4), 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol , 0.10 % TritonX-100
Specification Version: PS-R0579S/L v3.0

Cac8I Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0579LVIAL	Cac8I	10183077	Pass
B6004SVIAL	rCutSmart™ Buffer	10179340	Pass

Assay Name/Specification	Lot # 10183076
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 15 units of Cac8I incubated for 4 hours at 37°C releases <0.2% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 5-fold over-digestion of Lambda DNA with Cac8I, ~75% 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 Cac8I.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda DNA and a minimum of 25 units of Cac8I incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass

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
23 Mar 2023


Michael Tonello

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Packaging Quality Control Inspector
03 Apr 2023