

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: *10079727*
Expiration Date: *08/2022*
Storage Temperature: *-20°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 | 10079726 | Pass |
| B7204SVIAL | CutSmart® Buffer | 10078752 | Pass |

| Assay Name/Specification | Lot # 10079727 |
|---|----------------|
| 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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31 Aug 2020



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Packaging Quality Control Inspector
31 Aug 2020