

New England Biolabs Certificate of Analysis

Product Name: *Cac8I*
Catalog Number: *R0579S*
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: *10060607*
Expiration Date: *08/2021*
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
R0579SVIAL	Cac8I	10053674	Pass
B7204SVIAL	CutSmart® Buffer	10061299	Pass

Assay Name/Specification	Lot # 10060607
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³H] 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.</p>	Pass
<p>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.</p>	Pass
<p>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.</p>	Pass

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

Stephanie Cornelio

Stephanie Cornelio
Production Scientist
27 Aug 2019

Jay Minichiello

Jay Minichiello
Packaging Quality Control Inspector
08 Jan 2020