

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.*
Lot Number: *10031347*
Expiration Date: *12/2020*
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	10031346	Pass
B7204SVIAL	CutSmart® Buffer	10021125	Pass

Assay Name/Specification	Lot # 10031347
<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
<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

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



Tony Spear-Alfonso
Production Scientist
10 Dec 2018



Josh Hersey
Packaging Quality Control Inspector
27 Dec 2018