

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: 10091717
Expiration Date: 08/2022
Storage Temperature: -80°C
Storage Conditions: 10 mM Tris-HCl, 100 mM KCl, 1 mM DTT, 0.1 mM EDTA, 0.1 % Triton®X-100, 50 % Glycerol, 200 µg/ml BSA, (pH 7.4 @ 25°C)
Specification Version: PS-R0579L v4.0

Cac8I Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0579LVIAL	Cac8I	10079726	Pass
B7204SVIAL	CutSmart® Buffer	10089402	Pass

Assay Name/Specification	Lot # 10091717
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
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

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

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23 Nov 2020



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23 Nov 2020