

New England Biolabs Certificate of Analysis

Product Name: *Acil*

Catalog Number: *R0551L*

Concentration: *10,000 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: *10070078*

Expiration Date: *01/2022*

Storage Temperature: *-20°C*

Storage Conditions: *100 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA*

Specification Version: *PS-R0551S/L v1.0*

Acil Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0551LVIAL	Acil	10062767	Pass
B7204SVIAL	CutSmart® Buffer	10071080	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10065747	Pass

Assay Name/Specification	Lot # 10070078
<p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 30 Units of Acil 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>Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with Acil, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, ~50% can be recut with Acil.</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 30 units of Acil incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass

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



Penghua Zhang
Production Scientist
18 May 2020



Jay Minichiello
Packaging Quality Control Inspector
18 May 2020