

## New England Biolabs Certificate of Analysis

**Product Name:** Accl  
**Catalog Number:** R0161S  
**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.  
**Lot Number:** 10054476  
**Expiration Date:** 06/2021  
**Storage Temperature:** -20°C  
**Storage Conditions:** 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA  
**Specification Version:** PS-R0161S/L v1.0

Accl Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0161SVIAL	Accl	10046920	Pass
B7204SVIAL	CutSmart® Buffer	10046081	Pass

Assay Name/Specification	Lot # 10054476
<p><b>Blue-White Screening (Terminal Integrity)</b>            A sample of pUC19 vector linearized with a 10-fold excess of Accl, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in &lt;1% white colonies.</p>	Pass
<p><b>Endonuclease Activity (Nicking)</b>            A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled LITMUS28i DNA and a minimum of 100 Units of Accl incubated for 4 hours at 37°C results in &lt;20% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Exonuclease Activity (Radioactivity Release)</b>            A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 100 units of Accl incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>	Pass
<p><b>Ligation and Recutting (Terminal Integrity)</b>            After a 10-fold over-digestion of Lambda DNA with Accl, &gt;95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, &gt;95% can be recut with Accl.</p>	Pass

Assay Name/Specification	Lot # 10054476
<p><b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 100 Units of Accl incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	<b>Pass</b>
<p><b>Protein Purity Assay (SDS-PAGE)</b> Accl is &gt;95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.</p>	<b>Pass</b>

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




---

Penghua Zhang  
Production Scientist  
20 Jun 2019




---

Jay Minichiello  
Packaging Quality Control Inspector  
28 Aug 2019