

## New England Biolabs Certificate of Analysis

**Product Name:** Alul  
**Catalog Number:** R0137S  
**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:** 10074540  
**Expiration Date:** 01/2022  
**Storage Temperature:** -20°C  
**Storage Conditions:** 100 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-R0137S/L v1.0

Alul Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0137SVIAL	Alul	10062588	Pass
B7204SVIAL	CutSmart® Buffer	10075570	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10075964	Pass

Assay Name/Specification	Lot # 10074540
<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 50 Units of Alul incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 10-fold over-digestion of Lambda DNA with Alul, ~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 Alul.	Pass
<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 30 units of Alul incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass

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



Penghua Zhang  
Production Scientist  
16 Jul 2020



Josh Hersey  
Packaging Quality Control Inspector  
16 Jul 2020