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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: 10091177
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	10089399	Pass	
B7024AVIAL	Gel Loading Dye, Purple (6X)	10084973	Pass	

Assay Name/Specification	Lot # 10091177
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 Alul incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Non-Specific DNase Activity (16 Hour) 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
Ligation and Recutting (Terminal Integrity) 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

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

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Penghaa Zhang Production Scientist 19 Nov 2020 Michael Tonello

Packaging Quality Control Inspector

19 Nov 2020