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New England Biolabs Certificate of Analysis

Product Name: Haell
Catalog Number: R0107L
Concentration: 20,000 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: 10125570
Expiration Date: 10/2023
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-R0107S/L v1.0

Haell Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R0107LVIAL	Haell	10125569	Pass	
B6004SVIAL	rCutSmart™ Buffer	10115113	Pass	

Assay Name/Specification	Lot # 10125570
Exonuclease Activity (Radioactivity Release)	Pass
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 100 units of Haell incubated for	
4 hours at 37°C releases <0.1% of the total radioactivity.	
Ligation and Recutting (Terminal Integrity)	Pass
After a 10-fold over-digestion of Lambda DNA with HaeII, >95% of the DNA fragments can be ligated with T4 DNA ligase in 4 hours at 25°C. Of these ligated fragments,	
>95% can be recut with Haell.	
Non-Specific DNase Activity (16 hour)	Pass
A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of	
20 units of Haell incubated for 16 hours at 37°C results in a DNA pattern free of	
detectable nuclease degradation as determined by agarose gel electrophoresis. NOTE:	
although no nuclease degradation is detected under these conditions, extended	
incubations and/or high concentrations of this enzyme may result in star activity.	
See the product FAQ for recommended reaction conditions for this enzyme.	

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



R0107L / Lot: 10125570 Page 1 of 2 One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

Penghua Zhang

Production Scientist

18 Nov 2021

Michael Tonello

Packaging Quality Control Inspector

18 Nov 2021



R0107L / Lot: 10125570

Page 2 of 2