

## New England Biolabs Certificate of Analysis

**Product Name:** *Haelll*  
**Catalog Number:** *R0108L*  
**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:** *10121170*  
**Expiration Date:** *09/2023*  
**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-R0108S/L v1.0*

| Haelll Component List |                              |            |                      |
|-----------------------|------------------------------|------------|----------------------|
| NEB Part Number       | Component Description        | Lot Number | Individual QC Result |
| R0108LVIAL            | Haelll                       | 10121171   | Pass                 |
| B7024AVIAL            | Gel Loading Dye, Purple (6X) | 10114156   | Pass                 |
| B6004SVIAL            | rCutSmart™ Buffer            | 10115113   | Pass                 |

| Assay Name/Specification  | Lot # 10121170 |
|---|----------------|
| <b>Protein Purity Assay (SDS-PAGE)</b><br>Haelll is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.  | Pass           |
| <b>Ligation and Recutting (Terminal Integrity)</b><br>After a 20-fold over-digestion of Lambda DNA with Haelll, >95% 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 Haelll.   | Pass           |
| <b>Non-Specific DNase Activity (16 Hour)</b><br>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 100 Units of Haelll 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>Exonuclease Activity (Radioactivity Release)</b><br>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 Haelll 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.

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