

*be* INSPIRED *drive* DISCOVERY *stay* GENUINE

240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

## New England Biolabs Certificate of Analysis

| Product Name:          | Hhal   |
|------------------------|--|
| Catalog Number:        | R0139L   |
| Concentration:         | 20,000 U/ml  |
| Unit Definition:       | One unit is defined as the amount of enzyme required to digest 1 $\mu$ g of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 $\mu$ l. |
| Packaging Lot Number:  | 10107921   |
| Expiration Date:       | 05/2023  |
| Storage Temperature:   | -20°C  |
| Storage Conditions:    | 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50%<br>Glycerol, 200 μg/ml BSA  |
| Specification Version: | PS-R0139S/L v1.0   |

| Hhal Component List |                       |            |                      |  |
|---------------------|-----------------------|------------|----------------------|--|
| NEB Part Number     | Component Description | Lot Number | Individual QC Result |  |
| R0139LVIAL          | Hhal                  | 10107920   | Pass                 |  |
| B6004SVIAL          | rCutSmart™ Buffer     | 10107576   | Pass                 |  |

| Assay Name/Specification  | Lot # 10107921 |
|---|----------------|
| Exonuclease Activity (Radioactivity Release)<br>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and<br>double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 60 units of Hhal incubated for 4<br>hours at 37°C releases <0.1% of the total radioactivity.    | Pass           |
| <b>Ligation and Recutting (Terminal Integrity)</b><br>After a 10-fold over-digestion of Lambda DNA with Hhal, >95% of the DNA fragments<br>can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments,<br>>95% can be recut with Hhal.                                     | Pass           |
| Non-Specific DNase Activity (16 Hour)<br>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of<br>60 Units of Hhal incubated for 16 hours at 37°C results in a DNA pattern free of<br>detectable nuclease degradation as determined by agarose gel electrophoresis. | Pass           |

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

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.





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Michael Tonello Packaging Quality Control Inspector 21 May 2021

