## 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 $1 \mu \mathrm{~g}$ of Lambda DNA in 1 hour at $37^{\circ} \mathrm{C}$ in a total reaction volume of $50 \mu \mathrm{l}$. |
| Packaging Lot Number: | 10107921 |
| Expiration Date: | 05/2023 |
| Storage Temperature: | $-20^{\circ} \mathrm{C}$ |
| Storage Conditions: | $50 \mathrm{mM} \mathrm{KCl}, 10 \mathrm{mM}$ Tris-HCl (pH 7.4), $1 \mathrm{mM} \mathrm{DTT}$,0.1 mM EDTA, $50 \%$ Glycerol, $200 \mu \mathrm{~g} / \mathrm{ml}$ 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) | Pass |
| A $50 \mu$ l reaction in CutSmartTM Buffer containing $1 \mu \mathrm{~g}$ of a mixture of single and |  |
| double-stranded [ $\left.{ }^{3} \mathrm{H}\right] \mathrm{E}$. coli DNA and a minimum of 60 units of Hhal incubated for 4 |  |
| hours at $37^{\circ} \mathrm{C}$ releases $<0.1 \%$ of the total radioactivity. |  |
|  |  |
| Ligation and Recutting (Terminal Integrity) |  |
| After a 10-fold over-digestion of Lambda DNA with Hhal, >95\% of the DNA fragments |  |
| can be ligated with T4 DNA ligase in 16 hours at $16^{\circ} \mathrm{C}$. Of these ligated fragments, |  |
| $>95 \%$ can be recut with Hhal. | Pass |
| Non-Specific DNase Activity (16 Hour) <br> A $50 \mu l$ reaction in CutSmartTM Buffer containing $1 \mu g$ of Lambda DNA and a minimum of <br> 60 Units of Hhal incubated for 16 hours at $37^{\circ} \mathrm{C}$ results in a DNA pattern free of <br> detectable nuclease degradation as determined by agarose gel electrophoresis. |  |

This product has been tested and shown to be in compliance with all specifications.
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be INSPIRED
drive DISCOVERY stay GENUINE


21 May 2021


[^0]
[^0]:    Michael Tonello
    Packaging Quality Control Inspector
    21 May 2021

