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## New England Biolabs Certificate of Analysis

Product Name: I-Ceul
Catalog Number: R0699L
Concentration: 5,000 U/ml

Unit Definition: One unit is defined as the amount of enzyme required to cleave 1 µg

of pBHS Scal-linearized Control Plasmid in 3 hours at 37°C in a

total reaction volume of 50 μl.

Packaging Lot Number: 10092066
Expiration Date: 12/2021
Storage Temperature: -20°C

Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50%

Glycerol, 500 μg/ml BSA

Specification Version: PS-R0699S/L v1.0

| I-Ceul Component List  |                                      |            |                      |  |
|------------------------|--------------------------------------|------------|----------------------|--|
| <b>NEB Part Number</b> | Component Description                | Lot Number | Individual QC Result |  |
| R0699LVIAL             | I-Ceul                               | 10061312   | Pass                 |  |
| N0423SVIAL             | pBHS Scal-linearized Control Plasmid | 10062465   | Pass                 |  |
| B7204SVIAL             | CutSmart® Buffer                     | 10089402   | Pass                 |  |

| Assay Name/Specification  | Lot # 10092066 |
|---|----------------|
| Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and   | Pass           |
| a minimum of 15 Units of I-Ceul incubated for 4 hours at 37°C results in <20%   |                |
| conversion to the nicked form as determined by agarose gel electrophoresis.   |                |
| 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 50 units of I-Ceul 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 pBHS-Scal DNA with I-Ceul, >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 I-Ceul.   |                |
| ag  |                |
| Non-Specific DNase Activity (16 Hour)   | Pass           |
| A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pBHS-Scal DNA and a minimum   |                |



R0699L / Lot: 10092066

Page 1 of 2

| Assay Name/Specification   | Lot # 10092066 |
|--|----------------|
| of 50 Units of I-Ceul incubated for 16 hours at 37°C results in a DNA pattern free |                |
| of detectable nuclease degradation as determined by agarose gel electrophoresis.   |                |

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.

Penghua Zhang **Production Scientist** 

24 Nov 2020

Josh Hersey

Packaging Ou ality Control Inspector

24 Nov 2020

