

New England Biolabs Certificate of Analysis


Product Name: NlaIII
Catalog Number: R0125L
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of PhiX174 RF I DNA in 1 hour at 37°C in a total reaction volume of 50 µl.
Lot Number: 10038680
Expiration Date: 03/2021
Storage Temperature: -80°C
Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 500 µg/ml BSA, (pH 7.4 @ 25°C)
Specification Version: PS-R0125S/L v3.0

| NlaIII Component List | | | |
|-----------------------|------------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0125LVIAL | NlaIII | 10038681 | Pass |
| B7204SVIAL | CutSmart® Buffer | 10031568 | Pass |
| B7024SVIAL | Gel Loading Dye, Purple (6X) | 10021142 | Pass |

| Assay Name/Specification | Lot # 10038680 |
|---|----------------|
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 100 units of NlaIII incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. | Pass |
| Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of PhiX174 DNA with NlaIII, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 25°C. Of these ligated fragments, >95% can be recut with NlaIII. | Pass |
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of PhiX174 DNA and a minimum of 50 Units of NlaIII incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | Pass |
| Protein Purity Assay (SDS-PAGE) NlaIII is >95% pure as determined by SDS PAGE analysis using Coomassie Blue | Pass |

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|--------------------------|----------------|
| detection. | |

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


Doreen Duquette
Production Scientist
07 Feb 2019


Josh Hersey
Packaging Quality Control Inspector
15 Mar 2019