

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.
Packaging Lot Number: 10155077
Expiration Date: 06/2024
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	10155076	Pass
B7024AVIAL	Gel Loading Dye, Purple (6X)	10153339	Pass
B6004SVIAL	rCutSmart™ Buffer	10153337	Pass

Assay Name/Specification	Lot # 10155077
<p>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.</p>	Pass
<p>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.</p>	Pass
<p>Exonuclease Activity (Radioactivity Release) 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 100 units of NlaIII incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Protein Purity Assay (SDS-PAGE) NlaIII is >95% pure as determined by SDS PAGE analysis using Coomassie Blue</p>	Pass

Assay Name/Specification	Lot # 10155077
detection.	

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

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Penghua Zhang
Production Scientist
13 Jul 2022



Michael Tonello
Packaging Quality Control Inspector
13 Jul 2022