

## New England Biolabs Certificate of Analysis

**Product Name:** NlaIII  
**Catalog Number:** R0125S  
**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:** 10021445  
**Expiration Date:** 08/2020  
**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
R0125SVIAL	NlaIII	10021077	Pass
B7204SVIAL	CutSmart® Buffer	10031563	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10021135	Pass

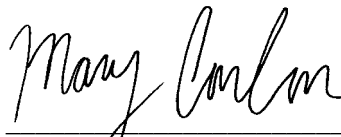
Assay Name/Specification	Lot # 10021445
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 100 units of NlaIII incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> 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
<b>Non-Specific DNase Activity (16 Hour)</b> 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
<b>Protein Purity Assay (SDS-PAGE)</b> NlaIII is >95% pure as determined by SDS PAGE analysis using Coomassie Blue	Pass

Assay Name/Specification	Lot # 10021445
detection.	

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



Jianying Luo  
Production Scientist  
27 Aug 2018



Mary Conlon  
Packaging Quality Control Inspector  
27 Dec 2018