

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: 10069830
Expiration Date: 03/2022
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	10069831	Pass
B7204SVIAL	CutSmart® Buffer	10074633	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10059231	Pass

Assay Name/Specification	Lot # 10069830
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

Assay Name/Specification	Lot # 10069830
detection.	

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



Penghua Zhang
Production Scientist
12 Jun 2020



Michael Tonello
Packaging Quality Control Inspector
12 Jun 2020