

## New England Biolabs Certificate of Analysis

**Product Name:** NlaIV  
**Catalog Number:** R0126S  
**Concentration:** 2,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of pBR322 DNA in 1 hour at 37°C in a total reaction volume of 50 µl.  
**Lot Number:** 10009661  
**Expiration Date:** 05/2020  
**Storage Temperature:** -20°C  
**Storage Conditions:** 200 mM KCl, 10 mM Tris-HCl (pH 7.5), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA  
**Specification Version:** PS-R0126S/L v1.0

NlaIV Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0126SVIAL	NlaIV	10009668	Pass
B7204SVIAL	CutSmart® Buffer	3091805	Pass

Assay Name/Specification	Lot # 10009661
<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 20 units of NlaIV 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 pBR322 DNA with NlaIV, >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 NlaIV.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pBR322 DNA and a minimum of 20 Units of NlaIV incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass

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



Penghua Zhang  
Production Scientist  
01 Jun 2018



Mary Conlon  
Packaging Quality Control Inspector  
25 Jun 2018