

## New England Biolabs Certificate of Analysis

**Product Name:** SfaNI  
**Catalog Number:** R0172L  
**Concentration:** 2,000 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:** 10065645  
**Expiration Date:** 02/2022  
**Storage Temperature:** -20°C  
**Storage Conditions:** 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA  
**Specification Version:** PS-R0172S/L v1.0

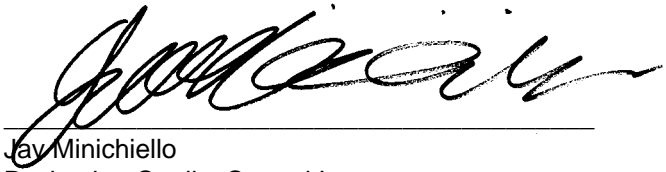
SfaNI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0172LVIAL	SfaNI	10065394	Pass
B7203SVIAL	NEBuffer™ 3.1	10053975	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10065745	Pass

Assay Name/Specification	Lot # 10065645
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 6 units of SfaNI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 2-fold over-digestion of PhiX174 DNA with SfaNI, ~75% 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 SfaNI.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in NEBuffer 3.1 containing 1 µg of PhiX174 DNA and a minimum of 2 Units of SfaNI 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.



Jianying Luo  
Production Scientist  
05 Feb 2020



Jay Minichiello  
Packaging Quality Control Inspector  
26 Mar 2020