

## New England Biolabs Certificate of Analysis

**Product Name:** SfaNI  
**Catalog Number:** R0172S  
**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.  
**Lot Number:** 10039269  
**Expiration Date:** 03/2021  
**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
R0172SVIAL	SfaNI	10039270	Pass
B7203SVIAL	NEBuffer™ 3.1	10041001	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10043348	Pass


Assay Name/Specification	Lot # 10039269
<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  
29 Mar 2019



---

Michael Tonello  
Packaging Quality Control Inspector  
05 Jun 2019