

## New England Biolabs Certificate of Analysis

**Product Name:** SfoI  
**Catalog Number:** R0606L  
**Concentration:** 10,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA (HindIII digest) in 1 hour at 37°C in a total reaction volume of 50 µl.  
**Packaging Lot Number:** 10063060  
**Expiration Date:** 12/2021  
**Storage Temperature:** -20°C  
**Storage Conditions:** 200 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA  
**Specification Version:** PS-R0606S/L v1.0

SfoI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0606LVIAL	SfoI	10060002	Pass
B7204SVIAL	CutSmart® Buffer	10061304	Pass

Assay Name/Specification	Lot # 10063060
<p><b>Non-Specific DNase Activity (16 Hour)</b>            A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda-HindIII DNA and a minimum of 30 Units of SfoI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Ligation and Recutting (Terminal Integrity)</b>            After a 10-fold over-digestion of Lambda-HindIII DNA with SfoI, &gt;95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, &gt;95% can be recut with SfoI.</p>	Pass
<p><b>Protein Purity Assay (SDS-PAGE)</b>            SfoI is &gt;95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.</p>	Pass
<p><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 SfoI incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>	Pass

Assay Name/Specification	Lot # 10063060
<p><b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled Litmus28i DNA and a minimum of 30 Units of SfoI incubated for 4 hours at 37°C results in &lt;20% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	<p><b>Pass</b></p>

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





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Anthony Francis  
Production Scientist  
10 Dec 2019




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Michael Tonello  
Packaging Quality Control Inspector  
03 Feb 2020