

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 rCutSmart Buffer in 1 hour at 37°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10149290
Expiration Date: 05/2024
Storage Temperature: -20°C
Storage Conditions: 10 mM Tris-HCl, 200 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml rAlbumin (pH 7.4 @ 25°C)
Specification Version: PS-R0606S/L v2.0

SfoI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0606LVIAL	SfoI	10149288	Pass
B6004SVIAL	rCutSmart™ Buffer	10146822	Pass

Assay Name/Specification	Lot # 10149290
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in rCutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 100 units of SfoI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in rCutSmart™ 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.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda-HindIII DNA with SfoI, >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 SfoI.	Pass
Protein Purity Assay (SDS-PAGE) SfoI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass

Assay Name/Specification	Lot # 10149290
<p>Endonuclease Activity (Nicking) A 50 µl reaction in rCutSmart™ 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 <20% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	<p>Pass</p>

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

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Penghua Zhang
Production Scientist
06 Jun 2022



Michael Tonello
Packaging Quality Control Inspector
06 Jun 2022