

be INSPIRED *drive* DISCOVERY *stay* GENUINE

240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

New England Biolabs Certificate of Analysis

Product Name:	Srfl
Catalog Number:	R0629S
Concentration:	20,000 U/mI
Unit Definition:	One unit is defined as the amount of enzyme required to digest 1 μ g of pNEB193-SrfI DNA in CutSmart incubated for 1 hour at 37°C in a total reaction volume of 50 μ l.
Packaging Lot Number:	10182407
Expiration Date:	09/2024
Storage Temperature:	-20°C
Storage Conditions:	300 mM NaCl , 10 mM Tris-HCl , 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol , 500 μg/ml BSA, (pH 7.4 @ 25°C)
Specification Version:	PS-R0629S/L v1.0

Srfl Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R0629SVIAL	Srfl	10182406	Pass	
B6004SVIAL	rCutSmart™ Buffer	10182167	Pass	

Assay Name/Specification	Lot # 10182407
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled pBR322 DNA and a minimum of 100 units of SrfI incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) A 50 μl reaction in CutSmart® Buffer containing 1 μg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 200 units of SrfI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Functional Testing (15 minute Digest) A 50 µl reaction in CutSmart® Buffer containing 1 µg of pNEB193-SrfI DNA and 1 µl of SrfI incubated for 15 minutes at 37°C results in complete digestion as determined by agarose gel electrophoresis.	Pass
Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of pNEB193-SrfI DNA with SrfI, ~75% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated	Pass





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Assay Name/Specification	Lot # 10182407
fragments, >95% can be recut with SrfI.	
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart® Buffer containing 1 µg of pNEB193-SrfI DNA and a minimum of 20 units of SrfI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Protein Purity Assay (SDS-PAGE) SrfI is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

YunJie Sun Production Scientist 16 Mar 2023

Josh Hersey

Packaging Quality Control Inspector 08 May 2023

