

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/ml |
| Unit Definition: | One unit is defined as the amount of enzyme required to digest 1 μ g of pNEB193-Srfl DNA in CutSmart incubated for 1 hour at 37°C in a total reaction volume of 50 μ l. |
| Packaging Lot Number: | 10081981 |
| Expiration Date: | 02/2022 |
| 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 | 10081982 | Pass | |
| B7204SVIAL | CutSmart® Buffer | 10078756 | Pass | |

| Assay Name/Specification | Lot # 10081981 |
|--|----------------|
| Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled pBR322 DNA and a minimum of 100 units of Srfl 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 # 10081981 |
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| 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.

Penghua Zhang

Penghua Zhang Production Scientist 18 Sep 2020

Michae

Michael Tonello Packaging Quality Control Inspector 18 Sep 2020

