

New England Biolabs Certificate of Analysis

Product Name: SbfI-HF[®]
Catalog Number: R3642L
Concentration: 20,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10116071
Expiration Date: 03/2023
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-R3642S/L v1.0

| SbfI-HF [®] Component List | | | |
|-------------------------------------|-------------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R3642LVIAL | SbfI-HF [®] | 10102163 | Pass |
| B7024AVIAL | Gel Loading Dye, Purple (6X) | 10108731 | Pass |
| B6004SVIAL | rCutSmart [™] Buffer | 10111605 | Pass |

| Assay Name/Specification | Lot # 10116071 |
|--|----------------|
| 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 100 units of SbfI-HF [™] incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. | Pass |
| Protein Purity Assay (SDS-PAGE) SbfI-HF [™] is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection. | Pass |
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart [™] Buffer containing 1 µg of Lambda DNA and a minimum of 20 Units of SbfI-HF [™] 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 DNA with SbfI-HF [™] , >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 SbfI-HF [™] . | Pass |

| Assay Name/Specification | Lot # 10116071 |
|---|--------------------|
| <p>Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled pBR322 DNA and a minimum of 20 Units of SbfI-HF™ 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.

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.



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05 Aug 2021



Michael Tonello
Packaging Quality Control Inspector
05 Aug 2021