

New England Biolabs Certificate of Analysis

<i>Product Name:</i>	<i>ScrFI</i>
<i>Catalog #:</i>	<i>R0110S/L</i>
<i>Concentration:</i>	<i>5,000 units/ml</i>
<i>Unit Definition:</i>	<i>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.</i>
<i>Lot #:</i>	<i>0111505</i>
<i>Assay Date:</i>	<i>05/2015</i>
<i>Expiration Date:</i>	<i>5/2017</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Storage Conditions:</i>	<i>250 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 0.15% Triton X-100, 200 µg/ml BSA</i>
<i>Specification Version:</i>	<i>PS-R0110S/L v1.0</i>
<i>Effective Date:</i>	<i>29 May 2013</i>

Assay Name/Specification (minimum release criteria)	Lot #0111505
Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³ H] <i>E. coli</i> DNA and a minimum of 15 units of ScrFI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) - After a 2-fold over-digestion of Lambda DNA with ScrFI, <5% 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 ScrFI.	Pass
Non-Specific DNase Activity (16 hour) - A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 5 Units of ScrFI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. NOTE: although no nuclease degradation is detected under these conditions, extended incubations and/or high concentrations of this enzyme may result in star activity. See the product FAQ for recommended reaction conditions for this enzyme.	Pass
Protein Purity Assay (SDS-PAGE) - ScrFI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass

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* The BSA in this product has been granted an EDQM "Certificate of Suitability" from the European Directorate for the Quality of Medicines (# R1-CEP-2003-204-Rev00) and has been granted a USDA Certificate for Export of Bovine Blood Plasma/Serum for Manufacture into Pharmaceutical Products.

M. W. Southworth

Authorized by
Maurice Southworth
29 May 2013

Stephanie Doucette

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11 Jun 2015

