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New England Biolabs Certificate of Analysis

Product Name: Spel-HF®
Catalog Number: R3133M
Concentration: 100,000 U/ml

Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg

of pXba-Xbal DNA in 1 hour at 37°C in a total reaction volume of 50

μl.

Packaging Lot Number: 10069155
Expiration Date: 03/2022
Storage Temperature: -20°C

Storage Conditions: 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

Specification Version: PS-R3133M v2.0

Spel-HF® Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R3133MVIAL	Spel-HF®	10069154	Pass
B7204SVIAL	CutSmart® Buffer	10068806	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10065745	Pass

Assay Name/Specification	Lot # 10069155
Blue-White Screening (Terminal Integrity) A sample of LITMUS28 vector linearized with a 10-fold excess of Spel-HF®, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in <1% white colonies.	Pass
Endonuclease Activity (Nicking) A 50 μl reaction in CutSmart® Buffer containing 1 μg of supercoiled PhiX174 DNA and a minimum of 60 units of Spel-HF® incubated for 4 hours at 37°C results in <20% 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 [³H] E. coli DNA and a minimum of 100 units of Spel-HF® incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of T7 DNA with Spel-HF®, >95% of the DNA fragments	Pass



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

Spel-HF® is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue

Stephanie Cornelio Production Scientist 05 Mar 2020

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detection.

Michael Tonello
Packaging Quality

Packaging Quality Control Inspector

30 Mar 2020



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