

New England Biolabs Certificate of Analysis

Product Name: Sall-HF[®]
Catalog Number: R3138L
Concentration: 20,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA (HindIII digest) in 1 hour at 37°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10080431
Expiration Date: 08/2022
Storage Temperature: -20°C
Storage Conditions: 50 mM KCl, 10 mM Tris-HCl (pH 7.5), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 300 µg/ml BSA
Specification Version: PS-R3138S/L v1.0

Sall-HF [®] Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R3138LVIAL	Sall-HF [®]	10080430	Pass
B7204SVIAL	CutSmart [®] Buffer	10078756	Pass
B7024AVIAL	Gel Loading Dye, Purple (6X)	10082183	Pass

Assay Name/Specification	Lot # 10080431
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 Sall-HF [™] incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 50-fold over-digestion of Adenovirus-2 DNA with Sall-HF [™] , >95% of the DNA fragments can be ligated with T4 DNA ligase in 4 hours at 25°C. Of these ligated fragments, >95% can be recut with Sall-HF [™] .	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart [™] Buffer containing 1 µg of pBR322 DNA and a minimum of 200 Units of Sall-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
Blue-White Screening (Terminal Integrity) A sample of pUC19 vector linearized with a 10-fold excess of Sall-HF [™] , religated	Pass

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<p>and transformed into an E. coli strain expressing the LacZ beta fragment gene results in <1% white colonies.</p> <p>Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 20 Units of Sall-HF™ incubated for 4 hours at 37°C results in <10% 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.

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11 Sep 2020



Michael Tonello
Packaging Quality Control Inspector
11 Sep 2020