

New England Biolabs Certificate of Analysis

Product Name: Sall-HF[®]
Catalog Number: R3138S
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: 10063191
Expiration Date: 11/2021
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
R3138SVIAL	Sall-HF [®]	10059862	Pass
B7204SVIAL	CutSmart [®] Buffer	10064406	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10064412	Pass

Assay Name/Specification	Lot # 10063191
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
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.	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 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	Pass

Assay Name/Specification	Lot # 10063191
<p>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™.</p> <p>Blue-White Screening (Terminal Integrity) A sample of pUC19 vector linearized with a 10-fold excess of Sall-HF™, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in <1% white colonies.</p>	<p>Pass</p>

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



Jianying Luo
Production Scientist
18 Nov 2019



Jay Minichiello
Packaging Quality Control Inspector
04 Feb 2020