

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: 10143732
Expiration Date: 07/2023
Storage Temperature: -20°C
Storage Conditions: 10 mM Tris-HCl, 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 300 µg/ml BSA, (pH 7.5 @ 25°C)
Specification Version: PS-R3138S/L/V v2.0

Sall-HF® Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R3138SVIAL	Sall-HF®	10116250	Pass
B7024AVIAL	Gel Loading Dye, Purple (6X)	10132772	Pass
B6004SVIAL	rCutSmart™ Buffer	10143285	Pass

Assay Name/Specification	Lot # 10143732
<p>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.</p>	Pass
<p>Ligation and Recutting (Terminal Integrity) After a 50-fold over-digestion of pBC4XS 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®.</p>	Pass
<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>	Pass
<p>Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and</p>	Pass

Assay Name/Specification	Lot # 10143732
<p>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>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 200 units of Sall-HF[®] incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</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.



Penghua Zhang
Production Scientist
22 Mar 2022



Josh Hersey
Packaging Quality Control Inspector
22 Mar 2022