

New England Biolabs Certificate of Analysis

Product Name: Sall-HF[®]
Catalog #: R3138S/L
Concentration: 20,000 units/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.
Lot #: 0101705
Assay Date: 05/2017
Expiration Date: 5/2019
Storage Temp: -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
Effective Date: 07 Mar 2016

Assay Name/Specification (minimum release criteria)	Lot #0101705
Blue-White Screening (Terminal Integrity) - A sample of pUC19 vector linearized with a 10-fold excess of Sall-HF [™] , religated and transformed into an <i>E. coli</i> 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 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] <i>E. coli</i> 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

* 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.



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Authorized by
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07 Mar 2016



Inspected by
Jianying Luo
19 May 2017

