

## New England Biolabs Certificate of Analysis

**Product Name:** Sall  
**Catalog Number:** R0138L  
**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:** 10162254  
**Expiration Date:** 08/2024  
**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-R0138S/L/V v2.0

| Sall Component List |                              |            |                      |
|---------------------|------------------------------|------------|----------------------|
| NEB Part Number     | Component Description        | Lot Number | Individual QC Result |
| R0138LVIAL          | Sall                         | 10162252   | Pass                 |
| B7024AVIAL          | Gel Loading Dye, Purple (6X) | 10158559   | Pass                 |
| B6003SVIAL          | NEBuffer™ r3.1               | 10146825   | Pass                 |

| Assay Name/Specification   | Lot # 10162254 |
|--|----------------|
| <b>Ligation and Recutting (Terminal Integrity)</b><br>After a 20-fold over-digestion of pBC4XS DNA with Sall, >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.   | Pass           |
| <b>Non-Specific DNase Activity (16 Hour)</b><br>A 50 µl reaction in NEBuffer 3.1 containing 1 µg of pBR322 DNA and a minimum of 20 units of Sall incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | Pass           |
| <b>Blue-White Screening (Terminal Integrity)</b><br>A sample of pUC19 vector linearized with a 10-fold excess of Sall, religated and transformed into an E. coli strain expressing the LacZ beta fragment gene results in <1% white colonies.  | Pass           |
| <b>Exonuclease Activity (Radioactivity Release)</b><br>A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and   | Pass           |

| Assay Name/Specification  | Lot # 10162254 |
|---|----------------|
| double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 100 units of Sall incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. |                |

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

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