

## New England Biolabs Certificate of Analysis

**Product Name:** SexAI  
**Catalog Number:** R0605S  
**Concentration:** 5,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of pBC4 DNA (dcm-) in 1 hour at 37°C in a total reaction volume of 50 µl.  
**Packaging Lot Number:** 10234894  
**Expiration Date:** 12/2025  
**Storage Temperature:** -20°C  
**Storage Conditions:** 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA  
**Specification Version:** PS-R0605S/L v1.0

| SexAI Component List |                       |            |                      |
|----------------------|-----------------------|------------|----------------------|
| NEB Part Number      | Component Description | Lot Number | Individual QC Result |
| R0605SVIAL           | SexAI                 | 10223287   | Pass                 |
| B6004SVIAL           | rCutSmart™ Buffer     | 10233338   | Pass                 |

| Assay Name/Specification   | Lot # 10234894 |
|--|----------------|
| <b>Exonuclease Activity (Radioactivity Release)</b><br>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 15 units of SexAI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.       | <b>Pass</b>    |
| <b>Ligation and Recutting (Terminal Integrity)</b><br>After a 10-fold over-digestion of pBC4 dcm- DNA with SexAI, ~75% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, ~75% can be recut with SexAI.   | <b>Pass</b>    |
| <b>Non-Specific DNase Activity (16 Hour)</b><br>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pBC4 dcm- DNA and a minimum of 15 Units of SexAI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | <b>Pass</b>    |


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

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22 Dec 2023



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08 Apr 2024