

## 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:** 10168874  
**Expiration Date:** 10/2024  
**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	10168873	Pass
B6004SVIAL	rCutSmart™ Buffer	10164465	Pass

Assay Name/Specification	Lot # 10168874
<b>Non-Specific DNase Activity (16 Hour)</b> 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.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> 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.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b> 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.	Pass

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](http://www.neb.com/trademarks) for additional information.

  
YunJie Sun  
Production Scientist  
25 Oct 2022

  
Michael Tonello

Michael Tonello  
Packaging Quality Control Inspector  
31 Oct 2022