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## New England Biolabs Certificate of Analysis

| Product Name:          | SexAI   |
|------------------------|---|
| Catalog #:             | R0605S/L  |
| Concentration:         | 5,000 units/ml  |
| Unit Definition:       | One unit is defined as the amount of enzyme required to digest 1 $\mu$ g of pBC4 DNA (dcm-) in 1 hour at 37°C in a total reaction volume of 50 $\mu$ l. |
| Lot #:                 | 0151706   |
| Assay Date:            | 06/2017   |
| Expiration Date:       | 6/2019  |
| Storage Temp:          | -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  |
| Effective Date:        | 18 Dec 2014   |

| Assay Name/Specification (minimum release criteria)   | Lot #0151706 |
|---|--------------|
| <b>Exonuclease Activity (Radioactivity Release)</b> - A 50 $\mu$ l reaction in CutSmart <sup>TM</sup> Buffer containing 1 $\mu$ g of a mixture of single and double-stranded [ <sup>3</sup> H] <i>E. coli</i> DNA and a minimum of 15 units of SexAI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. | Pass         |
| <b>Ligation and Recutting (Terminal Integrity)</b> - After a 10-fold over-digestion of pBC4 dcm- DNA with SexAI, $\sim$ 75% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, $\sim$ 75% can be recut with SexAI.   | Pass         |
| <b>Non-Specific DNase Activity (16 Hour)</b> - A 50 $\mu$ l reaction in CutSmart <sup>TM</sup> Buffer containing 1 $\mu$ g 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         |

\* 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 Derek Robinson 18 Dec 2014



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Inspected by Penghua Zhang 02 Jun 2017