

## New England Biolabs Certificate of Analysis

**Product Name:** Cre Recombinase  
**Catalog Number:** M0298M  
**Concentration:** 15,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme necessary to produce maximal site-specific recombination of 0.25 µg pLox2+ control DNA in 30 minutes at 37°C in a total reaction volume of 50 µl. Maximal recombination is determined by agarose gel analysis and by transformation of reactions followed by selection on ampicillin plates.  
**Packaging Lot Number:** 10167428  
**Expiration Date:** 10/2023  
**Storage Temperature:** -20°C  
**Storage Conditions:** 15 mM Tris-HCl, 250 mM NaCl, 50 % Glycerol, 0.3 mg/ml BSA, (pH 8.0 @ 25°C)  
**Specification Version:** PS-M0298M v1.0

| Cre Recombinase Component List |                                 |            |                      |
|--------------------------------|---------------------------------|------------|----------------------|
| NEB Part Number                | Component Description           | Lot Number | Individual QC Result |
| N0416SVIAL                     | Control DNA Linearized pLox2+   | 10139040   | Pass                 |
| M0298MVIAL                     | Cre Recombinase                 | 10167429   | Pass                 |
| B0298SVIAL                     | Cre Recombinase Reaction Buffer | 10142265   | Pass                 |

| Assay Name/Specification                                                                                                                                                                                                                                                                                                                             | Lot # 10167428 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Exonuclease Activity (Radioactivity Release)</b><br>A 50 µl reaction in Cre Recombinase Reaction Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 10 units of Cre Recombinase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.                            | Pass           |
| <b>Non-Specific DNase Activity (16 Hour)</b><br>A 50 ul reaction in Cre Recombinase Reaction Buffer containing 1 ug of PhiX174 RF 1 (HaeIII digested) DNA and a minimum of 10 units of Cre Recombinase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | 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.

*Lauren Higgins*

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Lauren Sears Higgins  
Production Scientist  
19 Oct 2022

*Michael Tonello*

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Michael Tonello  
Packaging Quality Control Inspector  
06 Dec 2022