

## New England Biolabs Product Specification

<i>Product Name:</i>	<i>Cre Recombinase</i>
<i>Catalog #:</i>	<i>M0298S/L</i>
<i>Concentration:</i>	<i>1,000 units/ml</i>
<i>Unit Definition:</i>	<i>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.</i>
<i>Shelf Life:</i>	<i>12 months</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Storage Conditions:</i>	<i>15 mM Tris-HCl, 250 mM NaCl, 50 % Glycerol, 0.3 mg/ml BSA, (pH 8.0 @ 25°C)</i>
<i>Specification Version:</i>	<i>PS-M0298S/L v1.0</i>
<i>Effective Date:</i>	<i>08 Jun 2018</i>

### Assay Name/Specification (minimum release criteria)

**Non-Specific DNase Activity (16 Hour)** - A 50 µl reaction in Cre Recombinase Reaction Buffer containing 1 µg 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.

**Exonuclease Activity (Radioactivity Release)** - 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.



Date 08 Jun 2018

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Director of Quality Control

