

## New England Biolabs Certificate of Analysis

**Product Name:** Cre Recombinase  
**Catalog Number:** M0298S  
**Concentration:** 1,000 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.  
**Lot Number:** 10031969  
**Expiration Date:** 12/2019  
**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-M0298S/L v1.0

Cre Recombinase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N0416SVIAL	Control DNA Linearized pLox2+	10019427	Pass
M0298SVIAL	Cre Recombinase	10031968	Pass
B0298SVIAL	Cre Recombinase Reaction Buffer	0011707	Pass

Assay Name/Specification	Lot # 10031969
<b>Exonuclease Activity (Radioactivity Release)</b> 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> 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.

*Lauren Higgins*

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Lauren Sears Higgins  
Production Scientist  
24 Aug 2018

*Michael Tonello*

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Michael Tonello  
Packaging Quality Control Inspector  
21 Dec 2018