

## New England Biolabs Certificate of Analysis

Product Name: PreCR® Repair Mix  
 Catalog Number: M0309S  
 Packaging Lot Number: 10083607  
 Expiration Date: 09/2021  
 Storage Temperature: -20°C  
 Storage Conditions: Proprietary  
 Specification Version: PS-M0309S/L v2.0

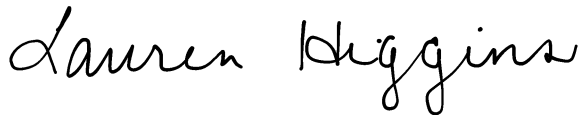
PreCR® Repair Mix Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
S1284AVIAL	L1 Primer Mix	10080831	Pass
N3017AVIAL	UV DNA	10080832	Pass
M0309SVIAL	PreCR® Repair Mix	10083605	Pass
B9007SVIAL	β-Nicotinamide adenine dinucleotide (NAD <sup>+</sup> )	10060529	Pass
B9004SVIAL	ThermoPol® Reaction Buffer Pack	10072023	Pass
B9000SVIAL	BSA, Molecular Biology Grade	10082650	Pass

Assay Name/Specification	Lot # 10083607
<p><b>PCR Amplification (1 kb, PreCR®)</b>            A 48 µl reaction in ThermoPol® Reaction Buffer containing 1.5 ng of UV damaged Lambda DNA, 100 µM dNTPs, 500 µM NAD<sup>+</sup> and 1 µl of the PreCR® Repair Mix was incubated for 15 minutes at 37°C. Addition of 100 µM dNTPs, 0.4 µM L1 primer mix and 2.5 units of Taq DNA Polymerase followed by 25 cycles of PCR resulted in the expected 1 kb specific product.</p>	Pass
<p><b>Functional Testing (Oligonucleotide Cleavage - Uracil)</b>            A 10 µl reaction in ThermoPol® Reaction Buffer containing 2.5 pmol of annealed oligo containing uracil as the non-standard base and 1 µl of the PreCR® Repair Mix incubated for 10 minutes at 37°C resulted in &gt;70% cleavage as determined by polyacrylamide gel electrophoresis</p>	Pass
<p><b>Functional Testing (Oligonucleotide Cleavage - Thymine Glycol)</b>            A 10 µl reaction in ThermoPol® Reaction Buffer containing 2.5 pmol of annealed oligo containing thymine glycol as the non-standard base and 1 µl of the PreCR® Repair Mix incubated for 20 minutes at 37°C resulted in &gt;70% cleavage as determined by polyacrylamide gel electrophoresis</p>	Pass

Assay Name/Specification	Lot # 10083607
<b>Functional Testing (Oligonucleotide Cleavage - 8-oxo-guanine)</b> A 10 µl reaction in ThermoPol® Reaction Buffer containing 2.5 pmol of annealed oligo containing 8-oxo-guanine as the non-standard base and 1 µl of the PreCR® Repair Mix incubated for 1 hour at 37°C resulted in >70% cleavage as determined by polyacrylamide gel electrophoresis	<b>Pass</b>

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  
Production Scientist  
22 Sep 2020



Michael Tonello  
Packaging Quality Control Inspector  
22 Sep 2020