Product Name: PreCR® Repair Mix
Catalog Number: M0309S
Packaging Lot Number: 10149353
Expiration Date: 04/2023
Storage Temperature: -20°C
Storage Conditions: Proprietary
Specification Version: PS-M0309S/L v2.0

PreCR® Repair Mix Component List

<table>
<thead>
<tr>
<th>NEB Part Number</th>
<th>Component Description</th>
<th>Lot Number</th>
<th>Individual QC Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1284AVIAL</td>
<td>L1 Primer Mix</td>
<td>10136032</td>
<td>Pass</td>
</tr>
<tr>
<td>N3017AVIAL</td>
<td>UV DNA</td>
<td>10115744</td>
<td>Pass</td>
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<tr>
<td>M0309SVIAL</td>
<td>PreCR® Repair Mix</td>
<td>10149352</td>
<td>Pass</td>
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<tr>
<td>B9007SVIAL</td>
<td>β-Nicotinamide adenine dinucleotide (NAD⁺)</td>
<td>10140406</td>
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<tr>
<td>B9004SVIAL</td>
<td>ThermoPol® Reaction Buffer Pack</td>
<td>10143500</td>
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</tr>
</tbody>
</table>

Assay Name/Specification

**PCR Amplification (1 kb, PreCR®)**
A 48 µl reaction in ThermoPol® Reaction Buffer containing 1.5 ng of UV damaged Lambda DNA, 100 µM dNTPs, 500 µM NAD⁺ 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.

**Functional Testing (Oligonucleotide Cleavage - 8-oxo-guanine)**
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.

**Functional Testing (Oligonucleotide Cleavage - Uracil)**
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 >70% cleavage as determined by polyacrylamide gel electrophoresis.

**Functional Testing (Oligonucleotide Cleavage - Thymine Glycol)**
Pass
Assay Name/Specification | Lot # 10149353
---|---
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 >70% cleavage as determined by polyacrylamide gel electrophoresis

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 for additional information.

Lauren Higgins  
Production Scientist  
11 May 2022

Erin Varney  
Packaging Quality Control Inspector  
11 May 2022