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New England Biolabs
Certificate of Analysis

Product Name:	*PreCR® Repair Mix*
Catalog #:	*M0309S/L*
Concentration:	*1 reaction/µL*
Lot #:	*0141803*
Assay Date:	*03/2018*
Expiration Date:	*03/2020*
Storage Temp:	*-20°C*
Storage Conditions:	*Proprietary*
Specification Version:	*PS-M0309S/L v1.0*
Effective Date:	*11 Jun 2018*

Assay Name/Specification (minimum release criteria)	**Lot #0141803**
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	**Pass**
Functional Testing (Oligonucleotide Cleavage - Thymine Glycol) - 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	**Pass**
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	**Pass**
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.	**Pass**

Authorized by
Derek Robinson
11 Jun 2018

Inspected by
Lauren Higgins
01 Mar 2018

nqa ISO 9001 Registered Quality Management
nqa ISO 14001 Registered Environmental Management
nqa ISO 13485 Registered Medical Devices