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## New England Biolabs Certificate of Analysis

Product Name: McrBC
Catalog Number: M0272L
Concentration: 10,000 U/ml

Unit Definition: One unit is defined as the amount of enzyme required to cleave 1 µg

of a plasmid containing multiple McrBC sites in 1 hour at 37°C in a

total reaction volume of 50 μl.

Lot Number: 10021359
Expiration Date: 12/2018
Storage Temperature: -20°C

Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50%

Glycerol, 500 μg/ml BSA

Specification Version: PS-M0272S/L v1.0

| McrBC Component List   |                              |            |                      |
|------------------------|------------------------------|------------|----------------------|
| <b>NEB Part Number</b> | Component Description        | Lot Number | Individual QC Result |
| N0419SVIAL             | GTP                          | 0031807    | Pass                 |
| N0418SVIAL             | McrBC Substrate              | 0201805    | Pass                 |
| M0272LVIAL             | McrBC                        | 10011301   | Pass                 |
| B9000SVIAL             | BSA, Molecular Biology Grade | 0151711    | Pass                 |
| B7002SVIAL             | NEBuffer™ 2                  | 0381805    | Pass                 |

| Assay Name/Specification   | Lot # 10021359 |
|--|----------------|
| Endonuclease Activity (Nicking)  | Pass           |
| A 50 µl reaction in NEBuffer 2 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of McrBC incubated for 4 hours at 37°C results in <10% |                |
| conversion to the nicked form as determined by agarose gel electrophoresis.  |                |
| Exonuclease Activity (Radioactivity Release)   | Pass           |
| A 50 µl reaction in NEBuffer 2 containing 1 µg of a mixture of single and  |                |
| double-stranded [ ³H] E. coli DNA and a minimum of 30 units of McrBC incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.              |                |
| Non-Specific DNase Activity (16 Hour)  | Pass           |
| A 50 μl reaction in NEBuffer 2 containing 1 μg of Lambda-HindIII DNA and a minimum   |                |
| of 30 units of McrBC incubated for 16 hours at 37°C results in a DNA pattern free of   |                |
| detectable nuclease degradation as determined by agarose gel electrophoresis.  |                |



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This product has been tested and shown to be in compliance with all specifications.

Mala<del>-Samaranayake</del>-

Production Scientist

21 Jun 2018

Michael Tonello

Packaging Quality Control Inspector

26 Sep 2018