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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.

Packaging Lot Number: 10098805 Expiration Date: 08/2021 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                          | 10092216   | Pass                 |  |
| N0418SVIAL             | McrBC Substrate              | 10092215   | Pass                 |  |
| M0272LVIAL             | McrBC                        | 10098804   | Pass                 |  |
| B9000SVIAL             | BSA, Molecular Biology Grade | 10089409   | Pass                 |  |
| B7002SVIAL             | NEBuffer™ 2                  | 10097265   | Pass                 |  |

| Assay Name/Specification  | Lot # 10098805 |
|---|----------------|
| Non-Specific DNase Activity (16 Hour) 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           | Pass           |
| detectable nuclease degradation 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. |                |
| 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.   |                |



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

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Mala-Samaranayake Production Scientist

18 Mar 2021

Michael Tonello

Packaging Quality Control Inspector

18 Mar 2021