240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

## New England Biolabs Certificate of Analysis

Product Name: McrBC

Catalog #: M0272S/L

Concentration: 10,000 units/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

 $37^{\circ}C$  in a total reaction volume of  $50 \mu l$ .

 Lot #:
 0351305

 Assay Date:
 05/2013

 Expiration Date:
 11/2013

 Storage Temp:
 -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
Effective Date: 08 Aug 2013

Assay Name/Specification (minimum release criteria)	Lot #0351305
<b>Endonuclease Activity (Nicking)</b> - 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.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b> - A 50 $\mu$ l reaction in NEBuffer 2 containing 1 $\mu$ g of a mixture of single and double-stranded [ $^3$ H] <i>E. coli</i> 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) - 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.	Pass

<sup>\*</sup> The BSA in this product has been granted an EDQM "Certificate of Suitability" from the European Directorate for the Quality of Medicines (# R1-CEP-2003-204-Rev00) and has been granted a USDA Certificate for Export of Bovine Blood Plasma/Serum for Manufacture into Pharmaceutical Products.

Authorized by Derek Robinson 08 Aug 2013







Inspected by
Mala Samaranayake
08 Aug 2013