NEW ENGLAND BioLabs Inc.

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:	*OneTaq® Quick-Load® 2X Master Mix with GC Buffer*
Catalog #:	*M0487S/L*
Concentration:	*2X Concentrate*
Lot #:	*0241705*
Assay Date:	*05/2017*
Expiration Date:	*5/2019*
Storage Temp:	*-20°C*
Composition (1X):	*80 mM Tris-SO_4 (pH 9.2 @ 25°C), 20 mM $(NH_4)_2SO_4$, 2 mM $MgSO_4$, 0.2 mM dATP, 0.2 mM dCTP, 0.2 mM dGTP, 0.2 mM dTTP, 5 % Glycerol, 5 % DMSO, 0.06 % IGEPAL® CA-630, 0.05 % Tween® 20, 1 X Xylene cyanol, 1 X Tartrazine, 25 units/ml OneTaq® DNA Polymerase*
Specification Version:	*PS-M0487S/L v1.0*
Effective Date:	*10 May 2017*

Assay Name/Specification (minimum release criteria)	**Lot #0241705**
Non-Specific DNase Activity (16 hour, Buffer) - A 50 µl reaction in 1X One*Taq*® Quick-Load® Master Mix with GC Buffer containing 1 µg of T3 DNA in addition to a reaction containing Lambda-HindIII DNA incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**
PCR Amplification (Buffer Dependent, >65% GC-rich, Master Mix) - A 25 µl reaction in 1X One*Taq*® Quick-Load® Master Mix with GC Buffer and 0.2 µM primers containing 10 ng Human Genomic DNA for 30 cycles of PCR amplification results in the buffer-dependent production of the 737 bp product.	**Pass**
PCR Amplification (Enhancer Dependent, >70% GC-rich, Master Mix) - A 25 µl reaction in 1X One*Taq*® Quick-Load® Master Mix with GC Buffer and 20% One*Taq*® High GC Enhancer in the presence of 0.2 µM primers containing 10 ng Human Genomic DNA for 30 cycles of PCR amplification results in the enhancer-dependent production of the 627 bp product.	**Pass**
RNase Activity (Extended Digestion) - A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of One*Taq*® Quick-Load® 2X Master Mix with GC Buffer is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	**Pass**

Authorized by
Karen Moreira
10 May 2017

Inspected by

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