New England Biolabs
Product Specification

**Product Name:** OneTaq® Quick-Load® 2X Master Mix with Standard Buffer

**Catalog #:** M0486S/L

**Concentration:** 2X Concentrate

**Shelf Life:** 24 months

**Storage Temp:** -20°C

**Composition (1X):**

- 20 mM Tris-HCl (pH 8.9 @ 25°C)
- 22 mM KCl
- 22 mM NH₄Cl
- 1.8 mM MgCl₂
- 0.2 mM dATP
- 0.2 mM dCTP
- 0.2 mM dGTP
- 0.2 mM dTTP
- 5% Glycerol
- 0.06% IGEPAL® CA-630
- 0.05% Tween® 20
- 1X Xylene cyanol
- 1X Tartrazine
- 25 units/ml OneTaq® DNA Polymerase

**Specification Version:** PS-M0486S/L v2.0

**Effective Date:** 13 Jul 2016

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**Assay Name/Specification (minimum release criteria)**

**Non-Specific DNase Activity (16 hour, Buffer)** - A 50 µl reaction in 1X OneTaq® Quick-Load® Master Mix with Standard 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.

**PCR Amplification (5 kb Lambda, Master Mix)** - A 25 µl reaction in 1X OneTaq® Quick-Load® Master Mix with Standard Buffer and 0.2 µM primers containing 5 ng Lambda DNA for 25 cycles of PCR amplification results in the expected 5 kb product.

**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 OneTaq® Quick-Load® 2X Master Mix with Standard 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.

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Derek Robinson
Director of Quality Control

Date 13 Jul 2016