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## New England Biolabs Product Specification

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

Catalog #: M0486S/L/X
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 NH<sub>4</sub>Cl, 1.8 mM MgCl<sub>2</sub>, 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, 1 X Xylene cyanol, 1 X

Tartrazine, 25 units/ml OneTaq® DNA Polymerase

Specification Version: PS-M0486S/L v3.0

Effective Date: 12 Feb 2020

## Assay Name/Specification (minimum release criteria)

Non-Specific DNase Activity (16 hour, Buffer) - A 50 µl reaction in 1X One *Taq*® Quick-Load® Master Mix with Standard Buffer containing 1 µg of T3 or T7 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 One *Taq*® 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  $\mu$ l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1  $\mu$ l of One Taq® 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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