

New England Biolabs Certificate of Analysis

Product Name: OneTaq[®] Hot Start Quick-Load[®] 2X Master Mix with GC Buffer
Catalog #: M0489S/L
Concentration: 2X Concentrate
Lot #: 0281712
Assay Date: 12/2017
Expiration Date: 12/2019
Storage Temp: -20°C
Composition (1X): 80 mM Tris-SO₄ (pH 9.2 @ 25°C), 20 mM (NH₄)₂SO₄, 2 mM MgSO₄, 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[®] Hot Start DNA Polymerase
Specification Version: PS-M0489S/L v1.0
Effective Date: 16 Nov 2017

Assay Name/Specification (minimum release criteria)	Lot #0281712
Inhibition of Primer Extension (Hot Start, Radioactivity Incorporation) - A 50 µl primer extension assay in ThermoPol [®] Reaction Buffer in the presence of 200 µM dNTPs including [³ H]-dTTP, containing 15 nM primed single-stranded M13mp18 with 2.5 units of OneTaq [®] Hot Start DNA Polymerase incubated for 16 hours at 25°C yields >95% inhibition when compared to a non-hot start control reaction.	Pass
Non-Specific DNase Activity (16 hour, Buffer) - A 50 µl reaction in 1X OneTaq [®] Hot Start 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 OneTaq [®] Hot Start 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 OneTaq [®] Hot Start Quick-Load [®] Master Mix with GC Buffer and 20% OneTaq [®] 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



