# Product Name:
LongAmp® Taq 2X Master Mix

**Catalog #:** M0287S/L

**Concentration:** 2X Concentrate

**Lot #:** 0321708

**Assay Date:** 08/2017

**Expiration Date:** 2/2019

**Storage Temp:** -20°C

**Composition (1X):**
60 mM Tris-SO₄ (pH 9.1 @ 25°C), 20 mM (NH₄)₂SO₄, 2 mM MgSO₄, 0.3 mM dATP, 0.3 mM dCTP, 0.3 mM dGTP, 0.3 mM dTTP, 3 % Glycerol, 0.06 % IGEPAL® CA-630, 0.05 % Tween® 20, 125 units/ml LongAmp® Taq DNA Polymerase

**Specification Version:** PS-M0287S/L v1.0

**Effective Date:** 10 Aug 2017

<table>
<thead>
<tr>
<th>Assay Name/Specification (minimum release criteria)</th>
<th>Lot #0321708</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-Specific DNase Activity (16 hour, Buffer)</strong> - A 50 µl reaction in 1X LongAmp® Taq Master Mix 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.</td>
<td>Pass</td>
</tr>
<tr>
<td><strong>PCR Amplification (30 kb Human Genomic DNA, Master Mix)</strong> - A 25 µl reaction in 1X LongAmp® Taq Master Mix and 0.4 µM primers containing 500 ng Human Genomic DNA for 28 cycles of PCR amplification results in the expected 30 kb product.</td>
<td>Pass</td>
</tr>
<tr>
<td><strong>PCR Amplification (30 kb Lambda DNA, Master Mix)</strong> - A 25 µl reaction in 1X LongAmp® Taq Master Mix and 0.4 µM primers containing 1 ng Lambda DNA for 28 cycles of PCR amplification results in the expected 30 kb product.</td>
<td>Pass</td>
</tr>
<tr>
<td><strong>qPCR DNA Contamination (E. coli Genomic)</strong> - A minimum of 2.5 units of LongAmp® Taq DNA Polymerase is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.</td>
<td>Pass</td>
</tr>
<tr>
<td><strong>RNase Activity (Extended Digestion)</strong> - A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of LongAmp® Taq 2X Master Mix is incubated at 37°C. After incubation for 4 hours, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</td>
<td>Pass</td>
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</tbody>
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Certificate of Analysis

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M0287S/L Lot: 0321708
Page 1 of 2
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