

## New England Biolabs Certificate of Analysis

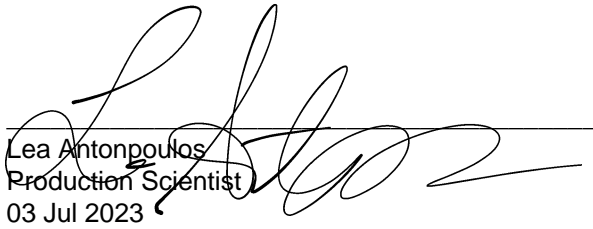
**Product Name:** Q5® Blood Direct 2X Master Mix  
**Catalog Number:** M0500L  
**Concentration:** 2 X Concentrate  
**Packaging Lot Number:** 10207348  
**Expiration Date:** 05/2025  
**Storage Temperature:** -20°C  
**Specification Version:** PS-M0500S/L/G v1.0  
**Composition (1X):** Proprietary

Q5® Blood Direct 2X Master Mix Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0500SVIAL	Q5® Blood Direct 2X Master Mix	10192603	Pass

Assay Name/Specification	Lot # 10207348
<b>Non-Specific DNase Activity (16 hour, Buffer)</b> A 50 µl reaction in 1X Q5® Blood Direct Master Mix 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.	<b>Pass</b>
<b>PCR Amplification (0.5 kb Whole Blood DNA)</b> A 20 µl reaction in 1X Q5® Blood Direct Master Mix and 0.5 µM primers containing 10% whole blood treated with sodium heparin, sodium EDTA, potassium EDTA or sodium citrate for 35 cycles of PCR amplification results in the expected 0.5 kb product.	<b>Pass</b>
<b>PCR Amplification (4.8 kb Whole Blood DNA)</b> A 20 µl reaction in 1X Q5® Blood Direct Master Mix and 0.5 µM primers containing 15% whole blood treated with potassium EDTA for 35 cycles of PCR amplification results in the expected 4.8 kb product.	<b>Pass</b>
<b>qPCR DNA Contamination (E. coli Genomic)</b> A minimum of 1 µl of Q5® Blood Direct 2X Master Mix 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.	<b>Pass</b>

This product has been tested and shown to be in compliance with all specifications.

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.

  
Lea Antonopoulos  
Production Scientist  
03 Jul 2023

  
Michael Tonello  
Packaging Quality Control Inspector  
30 Aug 2023