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240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

## New England Biolabs Certificate of Analysis

Product Name:	Q5® Blood Direct 2X Master Mix
Catalog Number:	M0500L
Concentration:	2 X Concentrate
Packaging Lot Number:	10189911
Expiration Date:	03/2025
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	10184747	Pass	

Assay Name/Specification	Lot # 10189911
<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.	Pass
<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.	Pass
<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.	Pass
<b>qPCR DNA Contamination (E. coli Genomic)</b> A minimum of 1 $\mu$ l 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 $\leq$ 1 E. coli genome.	Pass

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





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Lea Antonpoulos Production Scientist 03 Apr 2023

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Michael Tonello Packaging Quality Control Inspector 01 May 2023

