240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
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www.neb.com
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New England Biolabs
Certificate of Analysis

Product Name:	*Q5® Blood Direct 2X Master Mix*
Catalog Number:	*M0500G*
Concentration:	*2 X Concentrate*
Packaging Lot Number:	*10242497*
Expiration Date:	*02/2026*
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**
M0500GVIAL	Q5® Blood Direct 2X Master Mix	10233225	**Pass**

Assay Name/Specification	**Lot # 10242497**
Non-Specific DNase Activity (16 hour, Buffer) 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**
PCR Amplification (0.5 kb Whole Blood DNA) 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**
PCR Amplification (4.8 kb Whole Blood DNA) 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**
qPCR DNA Contamination (E. coli Genomic) 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.	**Pass**

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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 for additional information.

Lea Antonopoulos
Production Scientist
15 Mar 2024

Michael Tonello
Packaging Quality Control Inspector
14 May 2024