meridian BIOSCIENCE™ LIFE DISCOVERED. LIFE DIAGNOSED.	**Certificate of Analysis**	**COA No: CA_BSM-0097** **Version: 06**

Lyo-Ready™ 1-Step RT-qPCR Mix, 2x

For research or further manufacturing use only

Catalog No:	MDX062
Lot No:	EM078-B112760
Storage Conditions:	-20°C
Component Lot No:	LY1S-222411A
Expiry date:	December 2024

Quality Control Parameters

Ready-to-use, glycerol-free RT-qPCR mastermix formulated with a specialized blend of excipients for lyophilization into beads or cakes

Analysis	**Specification**	**Result**
Functional	Quantitative RT-qPCR analysis amplifying 3 genes from a dilution series of mouse RNA under standard conditions. Pass Criteria: Amplification profiles must be consistent for the test and reference sample within ± 0.5 Cq variance.	Passed
DNA contamination	Quantitative PCR analysis with no template. Presence of *E. coli* and mouse genomic DNA checked. Test sample must amplify in concordance with control sample. Pass Criteria: Amplification traces must overlay with the negative control.	Passed
DNase contamination	DNase contamination is measured as DNA substrate degradation against a DNase I dilution series by agarose gel electrophoresis. Limit of detection: 6.25 x 10^{-4} KU DNase I. Pass Criteria: No detectable degradation.	Passed

RNase contamination	Quantitative PCR analysis with high and low RNase standards. Limit of detection: 9.7×10^{-3} ng/µL RNase Pass Criteria: Test sample must show less RNase activity than the limit of detection.	Passed

QA / QC Representative: Alberta Newton Date: 25th November 2022

meridian BIOSCIENCE™ LIFE DISCOVERED. LIFE DIAGNOSED.	Certificate of Analysis	COA No: CA_BE-0076-3
		Version: 02

# Virus MMLV-RT	Catalog No:	MDX062
For research or further manufacturing use only	Lot No:	EM078-B112760
	Storage Conditions:	-20°C
	Component Lot No:	VRT1-122311A
	Expiry date:	December 2024

Quality Control Parameters

MMLV-RT (Moloney Murine Leukemia Virus Reverse Transcriptase) is a reverse transcriptase that can be used for cDNA synthesis and subsequent PCR or qPCR in a one-step or two-step assay.

Analysis	Specification	Result
Functional	Activity is measured as reverse transcriptase units by primer extension analysis against a reference enzyme. Pass Criteria: Activity must be equal to or greater than 200 U/µL	Passed
Specific Activity	The Specific activity must be ≥ 300,000 U/mg	Passed
Purity	Densitometric analysis of SDS-Page. Purity must be higher than 95%	Passed
DNA contamination	Quantitative PCR analysis with no template. Presence of *E. coli* and mouse genomic DNA checked. Test sample must amplify in line with control sample.	Passed
DNase contamination	Incubation of a 1Kb double stranded DNA fragment. Incubation for 4 hours at 37°C with dilution series of DNase I. Analysed by agarose gel electrophoresis. Test sample must show less degradation than the limit of detection 2.5×10^{-3} U DNase I.	Passed
RNase contamination	Quantitative PCR analysis with high and low RNase standards. Test sample must show less RNase activity than the limit of detection 9.7×10^{-3} ng/µL RNase.	Passed

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		Version: v04

Enzyme Dilution Buffer

For research or further manufacturing use only

Catalog No:	MDX062
Lot No:	EM078-B112760
Storage Conditions:	-20°C
Lot number:	TDB-222111A
Expiry date:	December 2024

Quality Control Parameters

Enzyme Dilution Buffer is a glycerol-free 10x buffer used for the dilution of Taq antibody or reverse transcriptase.

Analysis	Specification	Result
Functional	A 3Kb fragment was amplified with a dilution series of Enzyme Dilution Buffer, using standard conditions and 30 cycles. A 3Kb fragment was amplified with a dilution series of *Taq polymerase*, using standard conditions and 30 cycles. Single distinct bands were observed with agarose gel electrophoresis (ethidium stained).	Passed
Glycerol determination	Glycerol content is < 0.2% determined by spectrophotometric analysis and comparison to a standard curve.	Passed
DNA contamination	Quantitative PCR analysis with no template. Presence of *E. coli* and mouse genomic DNA checked. Test sample must amplify in line with a reference sample.	Passed
DNase contamination	Incubation of a 1Kb double stranded DNA fragment. Incubation for 4 hours at 37°C with dilution series of DNase I. Analysed by agarose gel electrophoresis. Test sample must show less degradation than the limit of detection 6.25×10^{-4} KU/µL.	Passed
RNase contamination	Quantitative PCR analysis with high and low RNase standards. Test sample must show less RNase activity than the limit of detection: 9.7×10^{-3} ng/µl RNase.	Passed

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