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|  | <b>Certificate of Analysis</b> | COA No: CA_BSM-0097 |
|                                                                                   |                                | Version: 07         |

|                                                                                                    |                     |               |
|----------------------------------------------------------------------------------------------------|---------------------|---------------|
| <b>Lyo-Ready™ 1-Step RT-qPCR Mix,<br/>2x</b><br><br>For research or further manufacturing use only | Catalog No:         | MDX062        |
|                                                                                                    | Lot No:             | EM078-B338980 |
|                                                                                                    | Storage Conditions: | -20°C         |
|                                                                                                    | Component Lot No:   | LY1S-425305A  |
|                                                                                                    | Expiry date:        | June 2027     |

### 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.<br><br><u>Pass Criteria:</u><br><br>Amplification profiles must be consistent for the test and reference sample within $\pm 0.5$ Cq variance.       | Passed |
| DNA contamination   | Quantitative PCR analysis with no template. Presence of <i>E. coli</i> and mouse genomic DNA checked. Test sample must amplify in concordance with control sample.<br><br><u>Pass Criteria:</u><br><br>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.<br><br>Limit of detection: $6.25 \times 10^{-4}$ KU DNase I.<br><br><u>Pass Criteria:</u><br><br>No detectable degradation.          | Passed |

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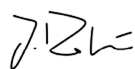
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|  | <b>Certificate of Analysis</b> | COA No: CA_BSM-0097 |
|                                                                                   |                                | Version: 07         |

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

QA / QC Representative:



J. Rahnenführer

Date: 14<sup>th</sup> May 2025

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|  | <b>Certificate of Analysis</b> | COA No: CA_BE-0076-3 |
|                                                                                   |                                | Version: 03          |

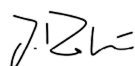
|                                                                            |                     |               |
|----------------------------------------------------------------------------|---------------------|---------------|
| <b>Virus MMLV-RT</b><br><br>For research or further manufacturing use only | Catalog No:         | MDX062        |
|                                                                            | Lot No:             | EM078-B338980 |
|                                                                            | Storage Conditions: | -20°C         |
|                                                                            | Component Lot No:   | VRT1-525105A  |
|                                                                            | Expiry date:        | June 2027     |

### 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.<br><u>Pass Criteria:</u><br>Activity must be equal to or greater than 200 U/μL                                                                   | Passed |
| Specific Activity   | The Specific activity must be $\geq 300,000$ U/mg                                                                                                                                                                                                             | Passed |
| Purity              | Densitometric analysis of SDS-Page.<br>Purity must be higher than 95%                                                                                                                                                                                         | Passed |
| DNA contamination   | Quantitative PCR analysis with no template. Presence of <i>E. coli</i> 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 $2.5 \times 10^{-3}$ 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 $9.7 \times 10^{-3}$ ng/μL RNase.                                                                                          | Passed |

QA / QC Representative:



J. Rahnenführer

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|                                                                                   |                                |                       |
|-----------------------------------------------------------------------------------|--------------------------------|-----------------------|
|  | <b>Certificate of Analysis</b> | COA No: CA_BDB-0025-2 |
|                                                                                   |                                | Version: v05          |

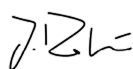
|                                                                                     |                     |               |
|-------------------------------------------------------------------------------------|---------------------|---------------|
| <b>Enzyme Dilution Buffer</b><br><br>For research or further manufacturing use only | Catalog No:         | MDX062        |
|                                                                                     | Lot No:             | EM078-B338980 |
|                                                                                     | Storage Conditions: | -20°C         |
|                                                                                     | Lot number:         | TDB-525205B   |
|                                                                                     | Expiry date:        | June 2027     |

### 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.<br><br>A 3Kb fragment was amplified with a dilution series of <i>Taq polymerase</i> , using standard conditions and 30 cycles.<br><br>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 <i>E. coli</i> 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 $6.25 \times 10^{-4}$ 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: $9.7 \times 10^{-3}$ ng/μl RNase.                                                                                                                                                                                  | Passed |

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