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|  | Certificate of Analysis | COA No: CA_XBE-0002 |
| | | Version: 09 |

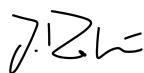
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|--|---------------------|---------------|
| IMMOLASE™ DNA Polymerase Suitable for Research and further Manufacturing Use | Catalog No: | BIO-21046 |
| | Lot No: | PL349-B126160 |
| | Storage Conditions: | -20°C |
| | Component Lot No: | IM-224103B |
| | Expiry date: | April 2026 |

Quality Control Parameters

| Analysis | Specification | Result |
|---------------------|---|--------|
| Activity | Quantitative PCR analysis amplifying 1 gene from a dilution series of enzyme under standard conditions. Cq and melting profiles must be consistent for the test and reference sample with ± 0.5 Cq variance. | Passed |
| Sensitivity | Quantitative PCR analysis amplifying 1 gene from a dilution series of mouse cDNA under standard conditions. Cq and melting profiles must be consistent for the test and reference sample with ± 0.5 Cq variance. A 3Kb fragment is amplified with a dilution series of Lambda DNA, using standard conditions and 30 cycles. Single distinct bands were observed with agarose gel electrophoresis (ethidium stained). | Passed |
| Heat activation | A 125bp fragment is amplified with a dilution series of enzyme, using 4 heat activation times and 30 cycles. Single distinct bands were observed, at the appropriate activation time, with agarose gel electrophoresis (ethidium stained). | Passed |
| Purity | Densitometric analysis of SDS-Page. Purity must be higher than 90% | 99.2 % |
| 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 2.5×10^{-3} U DNase. | Passed |

Reference Information: Heat stability: IMMOLASE™ DNA Polymerase contains at least 50% activity after incubation for 1hour at 94°C.

QA / QC Representative:



J. Rahnenführer

Date: 15th March 2024

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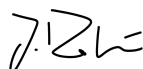
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|---|--------------------------------|---------------------|
|  | Certificate of Analysis | COA No: CA XBB-0002 |
| | | Version: 09 |

| | | |
|---|---------------------|---------------|
| ImmoBuffer For research or further manufacturing use only | Catalog No: | BIO-21046 |
| | Lot No: | PL349-B126160 |
| | Storage Conditions: | -20°C |
| | Component Lot No: | IB-324103B |
| | Expiry date: | April 2026 |

Quality Control Parameters

| Analysis | Specification | Result |
|---------------------|---|--------|
| Functional | Fragment of size 800bp was amplified with a dilution series of IMMOLASE™, using standard conditions and 30 cycles. Single distinct bands were observed with agarose gel electrophoresis (ethidium stained). | 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 2.5×10^{-3} U DNase. | Passed |

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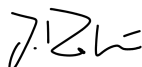
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|  | Certificate of Analysis | COA No: CA_XBB-0014 |
| | | Version: 09 |

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|--|---------------------|---------------|
| MgCl₂ Solution, 50mM For research or further manufacturing use only | Catalog No: | BIO-21046 |
| | Lot No: | PL349-B126160 |
| | Storage Conditions: | -20°C |
| | Component Lot No: | MG-2031.018 |
| | Expiry date: | April 2026 |

Quality Control Parameters

| Analysis | Specification | Result |
|---------------------|---|--------|
| Functional | Fragments of sizes 800bp and 3000bp are amplified with a dilution series of BIOTAQ™ DNA Polymerase, using standard conditions and 30 cycles. Single distinct bands were observed with agarose gel electrophoresis (ethidium stained). | 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 2.5×10^{-3} U DNase. | Passed |

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