meridian BIOSCIENCE ™ LIFE DISCOVERED. LIFE DIAGNOSED.	**Certificate of Analysis**	**COA No: CA_XBE-0054-2**
		Version: v07

Glycerol-Free Taq HS 50U/µL

For Research and Further Manufacturing use only

Catalog No:	MDX011
Lot No:	B129830
Storage Conditions:	-20°C
Component Lot No:	GF-224207A
Expiry date:	August 2026

Quality Control Parameters

Lyophlization-compatible, high concentration (50 U/µL), glycerol free DNA enzyme for automated high-throughput testing

Analysis	Specification	Result
Functional	Activity is measured as DNA polymerase units by quantitative PCR analysis against a reference Taq DNA polymerase standard curve. Pass Criteria: Activity must be between 50 and 60 U/µL	57.63 U/µL
Glycerol content	Glycerol concentration is determined by spectrophotometric measurement of a colorimetric product from a coupled enzymatic reaction. Pass Criteria: Glycerol content <0.02 %	Passed
Purity	Purity is measured as a percentage of total protein by quantitative gel electrophoresis on Bioanalyzer (Agilent). Pass Criteria: >50 %	100.0 %
DNA contamination	DNA contamination is measured by quantitative PCR on *E. coli* and mouse genomic DNA specific targets. Pass Criteria: Amplification traces must overlay with the negative control.	Passed

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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	RNase contamination is measured by quantitative PCR against RNase standards. Limit of detection: 9.7 x 10^{-3} ng/µL RNase. Pass Criteria: No detectable degradation.	Passed

QA / QC Representative: J. Rahnenführer Date: 31st July 2024

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meridian BIOSCIENCE ™ LIFE DISCOVERED. LIFE DIAGNOSED.	**Certificate of Analysis**	**COA No: CA_SUB-0126-2**
		Version: 06

Taq HS Antibody, 10 mg/mL

For research or further manufacturing use only

Catalog No:	MDX011
Lot No:	B129830
Storage Conditions:	-20°C
Component Lot No:	AB1-224207A
Expiry date:	August 2026

Quality Control Parameters

A monoclonal antibody to Taq DNA polymerase for use in hot-start PCR

Analysis	Specification	Result
Sensitivity	Sensitivity is measured by qPCR to determine specific product amplification at limiting template concentration Test Criteria Relative amount of amplified specific product must be equal to reference	Passed
Efficiency	Efficiency is measured using RT-qPCR to determine relative Taq DNA Polymerase activity across RNA template concentrations ranging 4 orders of magnitude Test Criteria RT-qPCR efficiency must be equal to reference ± 0.5 Ct at each input template concentration	Passed
Concentration	Concentration is measured by spectrophotometric analysis. Test Criteria Mean concentration should be between 9.5 and 10.5 mg/mL and the Coefficient of Variation (CV) should be ≤ 5%	10.1 mg/mL
DNA contamination	DNA contamination is measured by quantitative PCR on E. coli and mouse genomic DNA specific targets Test Criteria Amplification traces must overlay with the negative control	Passed

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DNase contamination	DNase contamination is measured as DNA substrate degradation against a DNase I dilution series by agarose gel electrophoresis Test Criteria No detectable degradation Limit of detection 6.25 x 10-4 kU DNase I.	Passed
RNase contamination	RNase contamination is measured by quantitative PCR against RNase standards. Test Criteria No detectable degradation Limit of detection 9.7 x 10-3 ng/µL RNase.	Passed

QA / QC Representative:  J. Rahnenführer Date: 31st July 2024

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		Version: v05

Enzyme Dilution Buffer

For research or further manufacturing use only

Catalog No:	MDX011
Lot No:	B129830
Storage Conditions:	-20°C
Lot number:	224107A
Expiry date:	August 2026

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

QA / QC Representative: J. Rahnenführer Date: 31st July 2024

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