

Glycerol-Free Taq HS 50U/μL

For Research and Further Manufacturing use only

Catalog No:	MDX011
Lot No:	EN018-B124050
Storage Conditions:	-20°C
Component Lot No:	GF-224201A
Expiry date:	February 2026

Quality Control Parameters

Lyophilization-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. <u>Pass Criteria:</u> 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. <u>Pass Criteria:</u> Glycerol content <0.02 %	Passed
Purity	Purity is measured as a percentage of total protein by quantitative gel electrophoresis on Bioanalyzer (Agilent). <u>Pass Criteria:</u> >50 %	100.0 %
DNA contamination	DNA contamination is measured by quantitative PCR on <i>E. coli</i> and mouse genomic DNA specific targets. <u>Pass Criteria:</u> Amplification traces must overlay with the negative control.	Passed

United Kingdom

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USA

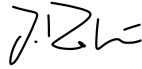
Tel: +1 901.382.8716
 Fax: +1 901.382.0027

Germany

Tel: +49 (0)3371 60222 00
 Fax: +49 (0)3371 60222 01

DNase contamination	DNase contamination is measured as DNA substrate degradation against a DNase I dilution series by agarose gel electrophoresis. Limit of detection: 6.25×10^{-4} KU DNase I. <u>Pass Criteria:</u> No detectable degradation.	Passed
RNase contamination	RNase contamination is measured by quantitative PCR against RNase standards. Limit of detection: 9.7×10^{-3} ng/ μ L RNase. <u>Pass Criteria:</u> No detectable degradation.	Passed

QA / QC Representative:



Jan Rahnenführer

Date: 17th January 2024

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Taq HS Antibody, 10 mg/mL

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Catalog No:	MDX011
Lot No:	EN018-B124050
Storage Conditions:	-20°C
Component Lot No:	AB1-224201A
Expiry date:	February 2026

Quality Control Parameters

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

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

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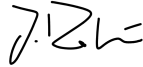
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<p>DNase contamination</p>	<p>DNase contamination is measured as DNA substrate degradation against a DNase I dilution series by agarose gel electrophoresis</p> <p>Test Criteria</p> <p>No detectable degradation</p> <p>Limit of detection 6.25 x 10⁻⁴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

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Enzyme Dilution Buffer

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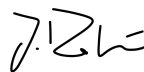
Catalog No:	MDX011
Lot No:	EN018-B124050
Storage Conditions:	-20°C
Lot number:	TDB-224101A
Expiry date:	February 2026

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	<p>A 3Kb fragment was amplified with a dilution series of Enzyme Dilution Buffer, using standard conditions and 30 cycles.</p> <p>A 3Kb fragment was amplified with a dilution series of <i>Taq polymerase</i>, using standard conditions and 30 cycles.</p> <p>Single distinct bands were observed with agarose gel electrophoresis (ethidium stained).</p>	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 6.25×10^{-4} KU/ μ L.	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/ μ L RNase.	Passed

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