BIOLINE A Meridian Life Science Company	**Certificate of Analysis**	**COA No: CA_XBE-054** **Version: v01**

GFDx *Taq* DNA Polymerase For Research Use Only	Storage Conditions: -20°C Lot number: GF-818405A Expiry date: July 2020

Quality Control Parameters

Analysis	Specification	Result
Functional	A dilution series of a 5 U/µl reference *Taq polymerase* comprising +/- 10 % concentration values in 5% increments is compared to the test sample by amplification of a 200 bp synthetic template by quantitative PCR analysis in triplicate. The mean test sample Ct must fall between +/- 10 % of the reference sample Ct.	Passed
Glycerol determination	Glycerol content is < 0.2% determined by spectrophotometric analysis and comparison to a standard curve.	Passed
Taq purity	*Taq* purity determined by protein Bioanalyser chip to be:	99.9%
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 equal to or less degradation than the limit of detection 6.25 x 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: 9.7x10^{-3} ng/µl RNase.	Passed

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BIOLINE	**Certificate of Analysis**	**COA No: CA_SUB-0126**
		Version: 01

Anti-Taq MAB Mix 10 mg/mL	Storage Conditions:	-20°C
	Lot number:	AB1-218106A
For Research Use Only	Expiry date:	July 2020

Quality Control Parameters

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%	10.0

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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
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

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BIOLINE	**Certificate of Analysis**	**COA No: CA_XDB-025**
		Version: v01

10x GFDx Dilution Buffer	Storage Conditions:	-20°C
	Lot number:	TDB-818105A
For Research Use Only	Expiry date:	July 2020

Quality Control Parameters

Analysis	Specification	Result
Functional	A 3Kb fragment was amplified with a dilution series of *Taq* 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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