

External Quality Assessment Scheme

## Faecal parasites multiplex, nucleic acid detection Round 1, 2023

### Specimens

Please find enclosed 3 lyophilized samples S001, S002 and S003 and vials of rehydration fluid, each 1.5 mL.

### Caution

Handle the samples with the same care as corresponding clinical specimens capable of transmitting infectious disease.

### Examinations

*Giardia lamblia*, NAT  
*Cryptosporidium*, NAT  
*Entamoeba histolytica*, NAT  
*Dientamoeba fragilis*, NAT

Note! Discontinued analyte: *Entamoeba dispar*, NAT

### Storage and use

After arrival, the samples should be stored at +2...8 °C.

1. Open the foil pouch and add 500 µL hydration fluid into the sample tube/vial and vortex briefly.
2. Invert the vial 4-6 times and vortex again briefly. Check that the sample pellet is completely dissolved. If necessary, repeat step 2.
3. Centrifuge the vial briefly to collect the rehydrated target material at the bottom of the tube.
4. Prepare and test the samples similar to patient specimens. Please note that DNA extraction is needed. Use the same dilution ratio as instructed in your test kit's instructions. The specimens are to be diluted in the sample diluent supplied by your test kit.
5. Tests should preferably be carried out immediately after hydration – and latest within 4 hours.

### Result reporting

Please enter the results and methods via LabScala ([www.labscala.com](http://www.labscala.com)).

Report the measurement date, test selection (tick the box) and method in the "Test selection" tab on the Pre-analytics page. If a listed pathogen is not included in your test selection, please choose "not in test selection" for the analyte in question. This information is transferred automatically to each sample and to the next round. You can change the information sample-wise or return to this page in order to change the information for all samples. If your test method is missing from the list, please contact the EQA Coordinator.

First, report the number of pathogenic findings that were identified from the sample. This question concerns only the pathogens that are included in the panel of this EQA round and are in your test selection. Next, report the pos/neg interpretation of each pathogen separately and the test result (e.g. Ct value). If you wish, you may copy e.g. interpretation "negative" to all analytes and then change the deviating results. Please note that results which are in the "draft" mode are not accepted in the result processing.

The participants are scored according to their test selection. In general, only the positive findings are scored for each sample. Interpretations "No test

2023-02-14

### INSTRUCTIONS

Product no. 5472  
LQ769823011-013/US

If the kit is incomplete or contains damaged specimens, please report immediately to [info@labquality.fi](mailto:info@labquality.fi).

---

The results should be reported no later than **March 9, 2023.**

---

The expected results of the round are published in LabScala in the View Reports section by March 14, 2023.

### Inquiries

EQA Coordinator  
Jaana Paakkanen  
[jaana.paakkanen@labquality.fi](mailto:jaana.paakkanen@labquality.fi)

### Labquality Oy

Kumpulantie 15  
FI-00520 HELSINKI  
Finland

Tel. + 358 9 8566 8200  
Fax + 358 9 8566 8280

[info@labquality.fi](mailto:info@labquality.fi)  
[www.labquality.com](http://www.labquality.com)



result” and “Invalid/unclear test result” are excluded from scoring. It is expected that the pathogens indicated in the sample content are to be identified, whereas other deviating findings will reduce the overall success rate. For those samples that are negative regarding all pathogens included in the panel of this scheme, the scoring is based on the answer given to the question “number of pathogenic findings” and the expected result would be “Negative sample, no pathogens detected”.

Faecal parasites multiplex, nucleic acid detection

S001



S002



S003



Client report

	No of participants	No of responded participants	Response percentage
Faecal parasites multiplex, nucleic acid detection, February, 1-2023	68	62	91.2 %

Summary

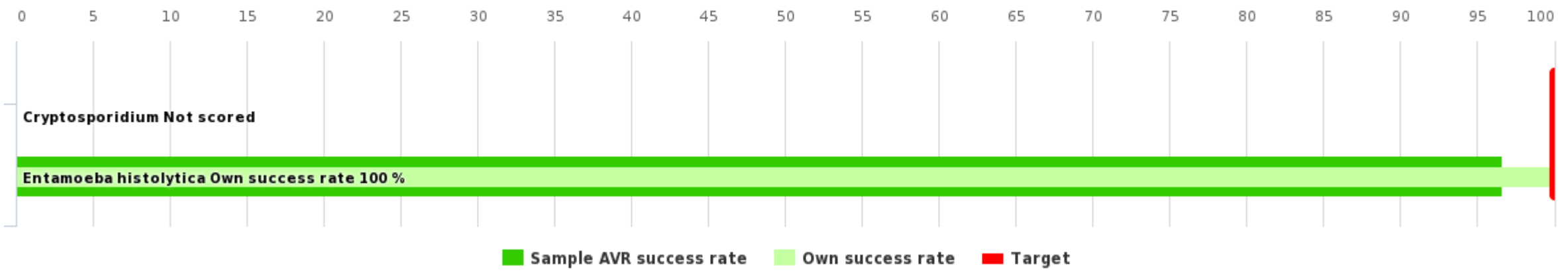


Summary	Own score	Max score	Own success rate	Difference	AVR success rate
Specimen S001	2	2	100 %	5 %	95 %
Specimen S002	2	2	100 %	7.8 %	92.2 %
Specimen S003	2	2	100 %	3.1 %	96.9 %
Average:			100 %	5.3 %	94.7 %

History	Test nr.	Own success rate	Difference	AVR success rate
Round 2022-3	1-1	100 %	2.9 %	97.1 %
Round 2022-2	1-1	100 %	3.7 %	96.3 %
Round 2022-1	1-1	100 %	5.5 %	94.5 %
Round 2021-3	1-1	100 %	1.3 %	98.7 %
Round 2021-2	1-1	100 %	3.7 %	96.3 %
Round 2021-1	1-1	100 %	2 %	98 %

Specimen S001 | Entamoeba histolytica

Specimen S001 success rate



Specimen S001 results	Responded	Own score	Max score	Own success rate	Difference	AVR success rate
	Number of pathogenic findings	-	-	-	-	-
	Giardia lamblia	-	-	-	-	-
	Cryptosporidium	-	-	-	-	0 %
	Entamoeba histolytica	2	2	100 %	3.4 %	96.6 %
	Dientamoeba fragilis	-	-	-	-	-
	Total:	2	2	100 %	5 %	95 %

Specimen S001 Number of pathogenic findings



■ Negative sample, no pathogens detected  
■ Positive sample, 1 pathogen detected

NUMBER OF PATHOGENIC FINDINGS

Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
Negative sample, no pathogens detected	6	-	-	-	-	-
<input checked="" type="radio"/> Positive sample, 1 pathogen detected	58	-	-	-	-	-
Total:	64	-	-	-	-	-

GIARDIA LAMBLIA

Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
<input checked="" type="radio"/> Negative	63	-	-	-	-	-
Not in test selection	1	-	-	-	-	-
Total:	64	-	-	-	-	-

Method	Negative	Not in test selection	Total:
Ademtech ParaGENIE G-Amoeba Real-Time PCR Kit	1	-	1
Amplicon AmpliTest Giardia intestinalis	1	-	1
AusDiagnostics Faecal Bacteria and Parasites	1	-	1
BD MAX Enteric Parasite Panel	<input checked="" type="radio"/> 7	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	9	-	9
In house	1	-	1
Mobidiag Amplidiag Stool Parasites	4	-	4
Mobidiag Novodiag Stool Parasites	4	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	2	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	1

R-Biopharm RIDA GENE Parasitic Stool Panel II	1	-	1
Seegene Allplex GI-Parasite Assay	26	-	26
Serosep EntericBio Gastro Panel 2	5	-	5
Total:	63	1	64

**CRYPTOSPORIDIUM**

Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
<input checked="" type="radio"/> Negative	62	-				-
Positive	1	-				0 %
Not in test selection	1	-				-
Total:	64	-	-	-	-	0 %

Method	Negative	Positive	Not in test selection	Total:
Ademtech ParaGENIE Crypto-Micro Real-Time PCR Kit	1	-	-	1
Amplicon AmpliTest Cryptosporidium parvum	1	-	-	1
AusDiagnostics Faecal Bacteria and Parasites	1	-	-	1
BD MAX Enteric Parasite Panel	<input checked="" type="radio"/> 7	-	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	9	-	-	9
In house	1	-	-	1
Mobidiag Amplidiag Stool Parasites	4	-	-	4
Mobidiag Novodiag Stool Parasites	4	-	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	2	-	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	1	-	-	1
Seegene Allplex GI-Parasite Assay	25	1	-	26
Serosep EntericBio Gastro Panel 2	5	-	-	5
Total:	62	1	1	64

**ENTAMOEBIA HISTOLYTICA**

Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
Negative	2	-				0 %
<input checked="" type="radio"/> Positive	57	2	2	100 %	0 %	100 %
Not in test selection	5	-				-
Total:	64	2	2	100 %	3.4 %	96.6 %

Method	Negative	Positive	Not in test selection	Total:
Ademtech ParaGENIE G-Amoeba Real-Time PCR Kit	-	1	-	1
Amplicon AmpliTest Entamoeba histolytica	-	1	-	1
AusDiagnostics Faecal Bacteria and Parasites	1	-	-	1
BD MAX Enteric Parasite Panel	-	<input checked="" type="radio"/> 7	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	-	9	-	9
In house	-	2	-	2
Mobidiag Amplidiag Stool Parasites	-	4	-	4
Mobidiag Novodiag Stool Parasites	-	4	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	-	2	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	-	1	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	-	1	-	1
Seegene Allplex GI-Parasite Assay	1	25	-	26
Total:	2	57	5	64

**DIENTAMOEBIA FRAGILIS**

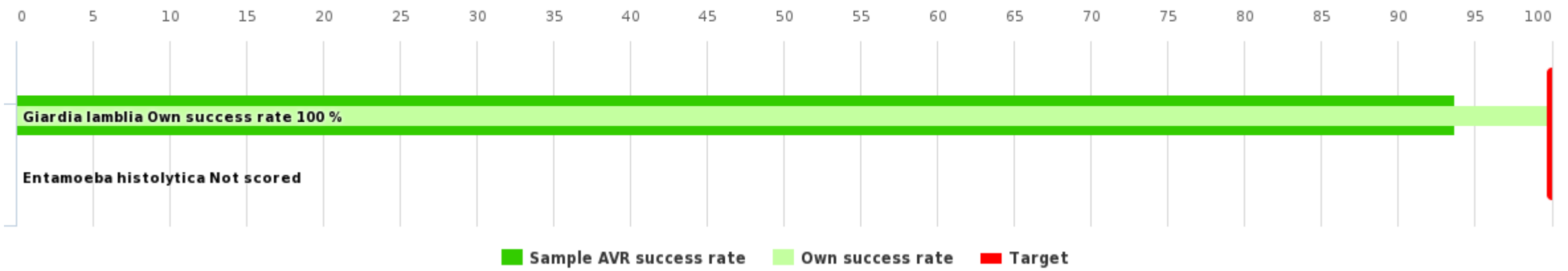
Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
Negative	39	-				-
<input checked="" type="radio"/> Not in test selection	25	-				-
Total:	64	-	-	-	-	

Method	Negative	Not in test selection	Total:
Amplicon AmpliTest Digestive System Parasites II	1	-	1
BioGX Parasitic Enteric CGED - OSR	2	-	2
In house	2	-	2
Mobidiag Amplidiag Stool Parasites	3	-	3
Mobidiag Novodiag Stool Parasites	4	-	4
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	1
Seegene Allplex GI-Parasite Assay	26	-	26

Total:	39	25	64
--------	----	----	----

Specimen S002 | Giardia lamblia

Specimen S002 success rate



Specimen S002 results	Responded	Own score	Max score	Own success rate	Difference	AVR success rate
	Number of pathogenic findings	-	-	-	-	-
	Giardia lamblia	2	2	100 %	6.3 %	93.7 %
	Cryptosporidium	-	-	-	-	-
	Entamoeba histolytica	-	-	-	-	0 %
	Dientamoeba fragilis	-	-	-	-	-
	Total:	2	2	100 %	7.8 %	92.2 %

Specimen S002 Number of pathogenic findings



■ Negative sample, no pathogens detected  
■ Positive sample, 1 pathogen detected

NUMBER OF PATHOGENIC FINDINGS

Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
Negative sample, no pathogens detected	3	-	-	-	-	-
<input checked="" type="radio"/> Positive sample, 1 pathogen detected	61	-	-	-	-	-
Total:	64	-	-	-	-	-

GIARDIA LAMBLIA

Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
Negative	4	-	-	-	-	0 %
Weak positive	2	-	-	-	-	100 %
<input checked="" type="radio"/> Positive	57	2	2	100 %	0 %	100 %
Not in test selection	1	-	-	-	-	-
Total:	64	2	2	100 %	6.3 %	93.7 %

Method	Negative	Weak positive	Positive	Not in test selection	Total:
Ademtech ParaGENIE G-Amoeba Real-Time PCR Kit	-	-	1	-	1
Amplicon AmpliTest Giardia intestinalis	-	-	1	-	1
AusDiagnostics Faecal Bacteria and Parasites	-	-	1	-	1
BD MAX Enteric Parasite Panel	-	-	<input checked="" type="radio"/> 7	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	-	-	9	-	9
In house	-	1	-	-	1
Mobidiag Amplidiag Stool Parasites	1	1	2	-	4



Mobidiag Novodiag Stool Parasites	1	-	3	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	-	-	2	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	-	-	1	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	-	-	1	-	1
Seegene Allplex GI-Parasite Assay	1	-	25	-	26
Serosep EntericBio Gastro Panel 2	1	-	4	-	5
Total:	4	2	57	1	64

**CRYPTOSPORIDIUM**

Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
<input checked="" type="radio"/> Negative	63	-				-
Not in test selection	1	-				-
Total:	64	-	-	-	-	

Method	Negative	Not in test selection	Total:
Ademtech ParaGENIE Crypto-Micro Real-Time PCR Kit	1	-	1
Amplicon AmpliTest Cryptosporidium parvum	1	-	1
AusDiagnostics Faecal Bacteria and Parasites	1	-	1
BD MAX Enteric Parasite Panel	<input checked="" type="radio"/> 7	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	9	-	9
In house	1	-	1
Mobidiag Amplidiag Stool Parasites	4	-	4
Mobidiag Novodiag Stool Parasites	4	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	2	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	1	-	1
Seegene Allplex GI-Parasite Assay	26	-	26
Serosep EntericBio Gastro Panel 2	5	-	5
Total:	63	1	64

**ENTAMOEBA HISTOLYTICA**

Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
<input checked="" type="radio"/> Negative	58	-				-
Positive	1	-				0 %
Not in test selection	5	-				-
Total:	64	-	-	-	-	0 %

Method	Negative	Positive	Not in test selection	Total:
Ademtech ParaGENIE G-Amoeba Real-Time PCR Kit	1	-	-	1
Amplicon AmpliTest Entamoeba histolytica	1	-	-	1
AusDiagnostics Faecal Bacteria and Parasites	1	-	-	1
BD MAX Enteric Parasite Panel	<input checked="" type="radio"/> 7	-	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	9	-	-	9
In house	2	-	-	2
Mobidiag Amplidiag Stool Parasites	4	-	-	4
Mobidiag Novodiag Stool Parasites	4	-	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	2	-	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	1	-	-	1
Seegene Allplex GI-Parasite Assay	25	1	-	26
Total:	58	1	5	64

**DIENTAMOEBA FRAGILIS**

Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
Negative	39	-				-
<input checked="" type="radio"/> Not in test selection	25	-				-
Total:	64	-	-	-	-	

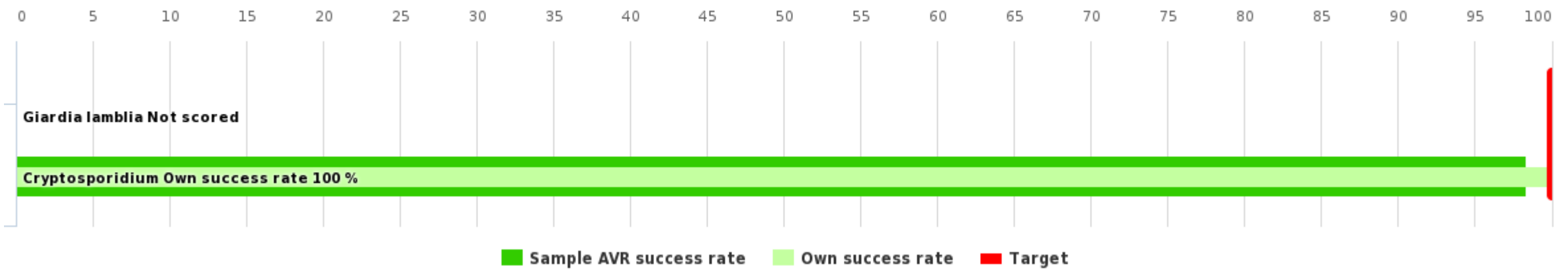
Method	Negative	Not in test selection	Total:
Amplicon AmpliTest Digestive System Parasites II	1	-	1
BioGX Parasitic Enteric CGED - OSR	2	-	2
In house	2	-	2
Mobidiag Amplidiag Stool Parasites	3	-	3



Mobidiag Novodiag Stool Parasites	4	-	4
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	1
Seegene Allplex GI-Parasite Assay	26	-	26
Total:	39	25	64

Specimen S003 | Cryptosporidium parvum

Specimen S003 success rate



Specimen S003 results	Responded	Own score	Max score	Own success rate	Difference	AVR success rate
	Number of pathogenic findings	-	-	-	-	-
	Giardia lamblia	-	-	-	-	0 %
	Cryptosporidium	2	2	100 %	1.6 %	98.4 %
	Entamoeba histolytica	-	-	-	-	-
	Dientamoeba fragilis	-	-	-	-	-
	Total:	2	2	100 %	3.1 %	96.9 %

Specimen S003 Number of pathogenic findings



■ Negative sample, no pathogens detected  
■ Positive sample, 1 pathogen detected

NUMBER OF PATHOGENIC FINDINGS

Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
Negative sample, no pathogens detected	1	-	-	-	-	-
<input checked="" type="radio"/> Positive sample, 1 pathogen detected	63	-	-	-	-	-
Total:	64	-	-	-	-	-

GIARDIA LAMBLIA

Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
<input checked="" type="radio"/> Negative	62	-	-	-	-	-
Positive	1	-	-	-	-	0 %
Not in test selection	1	-	-	-	-	-
Total:	64	-	-	-	-	0 %

Method	Negative	Positive	Not in test selection	Total:
Ademtech ParaGENIE G-Amoeba Real-Time PCR Kit	1	-	-	1
Amplicon AmpliTest Giardia intestinalis	1	-	-	1
AusDiagnostics Faecal Bacteria and Parasites	1	-	-	1
BD MAX Enteric Parasite Panel	<input checked="" type="radio"/> 7	-	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	9	-	-	9
In house	1	-	-	1
Mobidiag Amplidiag Stool Parasites	4	-	-	4
Mobidiag Novodiag Stool Parasites	4	-	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	2	-	-	2

R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	1	-	-	1
Seegene Allplex GI-Parasite Assay	25	1	-	26
Serosep EntericBio Gastro Panel 2	5	-	-	5
Total:	62	1	1	64

**CRYPTOSPORIDIUM**

Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
Negative	1	-	-	-	-	0 %
<input checked="" type="radio"/> Positive	62	2	2	100 %	0 %	100 %
Not in test selection	1	-	-	-	-	-
Total:	64	2	2	100 %	1.6 %	98.4 %

Method	Negative	Positive	Not in test selection	Total:
Ademtech ParaGENIE Crypto-Micro Real-Time PCR Kit	-	1	-	1
Amplicon AmpliTest Cryptosporidium parvum	-	1	-	1
AusDiagnostics Faecal Bacteria and Parasites	-	1	-	1
BD MAX Enteric Parasite Panel	-	<input checked="" type="radio"/> 7	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	-	9	-	9
In house	-	1	-	1
Mobidiag Amplidiag Stool Parasites	-	4	-	4
Mobidiag Novodiag Stool Parasites	-	4	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	-	2	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	-	1	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	-	1	-	1
Seegene Allplex GI-Parasite Assay	1	25	-	26
Serosep EntericBio Gastro Panel 2	-	5	-	5
Total:	1	62	1	64

**ENTAMOEBA HISTOLYTICA**

Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
<input checked="" type="radio"/> Negative	59	-	-	-	-	-
Not in test selection	5	-	-	-	-	-
Total:	64	-	-	-	-	-

Method	Negative	Not in test selection	Total:
Ademtech ParaGENIE G-Amoeba Real-Time PCR Kit	1	-	1
Amplicon AmpliTest Entamoeba histolytica	1	-	1
AusDiagnostics Faecal Bacteria and Parasites	1	-	1
BD MAX Enteric Parasite Panel	<input checked="" type="radio"/> 7	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	9	-	9
In house	2	-	2
Mobidiag Amplidiag Stool Parasites	4	-	4
Mobidiag Novodiag Stool Parasites	4	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	2	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	1	-	1
Seegene Allplex GI-Parasite Assay	26	-	26
Total:	59	5	64

**DIENTAMOEBA FRAGILIS**

Interpretation	Interpretation count	Own score	Max score	Own success rate	Difference	AVR success rate
Negative	39	-	-	-	-	-
<input checked="" type="radio"/> Not in test selection	25	-	-	-	-	-
Total:	64	-	-	-	-	-

Method	Negative	Not in test selection	Total:
Amplicon AmpliTest Digestive System Parasites II	1	-	1
BioGX Parasitic Enteric CGED - OSR	2	-	2
In house	2	-	2
Mobidiag Amplidiag Stool Parasites	3	-	3
Mobidiag Novodiag Stool Parasites	4	-	4
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	1
Seegene Allplex GI-Parasite Assay	26	-	26

Total:	39	25	64
--------	----	----	----

## Report Info

### PARTICIPANTS

Altogether 68 laboratories from 15 countries participated in this EQA round.

### REPORT INFO

The reported results and the scores are presented in the same summary. Sample specific results are shown in the tables as counts. The expected results are indicated in the tables with green colour. The laboratory's own result is shown by a black radio button .

You can view the result distribution of each specimen and pathogen on screen one by one. The tables can be opened and closed by clicking the screen button at the right end of the row. The result tables of pathogens with a negative result expectation and for which no deviating results have been reported are by default closed for clarification of the report.

The participant's own success is shown both as scores and as success rates (%) generated from the score values. They are presented both in the summary and in the sample specific parts of the report. If you have no results you will get a note: "You have not responded in time, only global report is available."

For information on report interpretation and performance evaluation, please see the "EQAS Interpretation guidelines" in LabScala User instructions. In case you have any questions regarding the reports, please contact the EQA Coordinator.

### SCORING

The participants are scored according to their test selection. The round is scored based on test results when 60% or more of the participants report the expected result and when at least three results are reported.

In general, only the positive findings are scored for each specimen. It is expected that the pathogens indicated in the sample content are to be identified, whereas other deviating findings will reduce the overall success rate. For those specimens that are negative regarding all pathogens included in the panel of this scheme, the scoring is based on the answer given to the question "number of pathogenic findings" and the expected result would be "Negative sample, no pathogens detected". Answer "No test result" and "Invalid/unclear test result" will be excluded from the scoring.

The scoring range is 0-2 points and the following general rules are followed:

2/2 points is given to results that are correct/accepted regarding the expected result  
1/2 point can be given to results that are partly correct/insufficient regarding the expected result  
0/2 point is given to results that are incorrect/false regarding the expected result

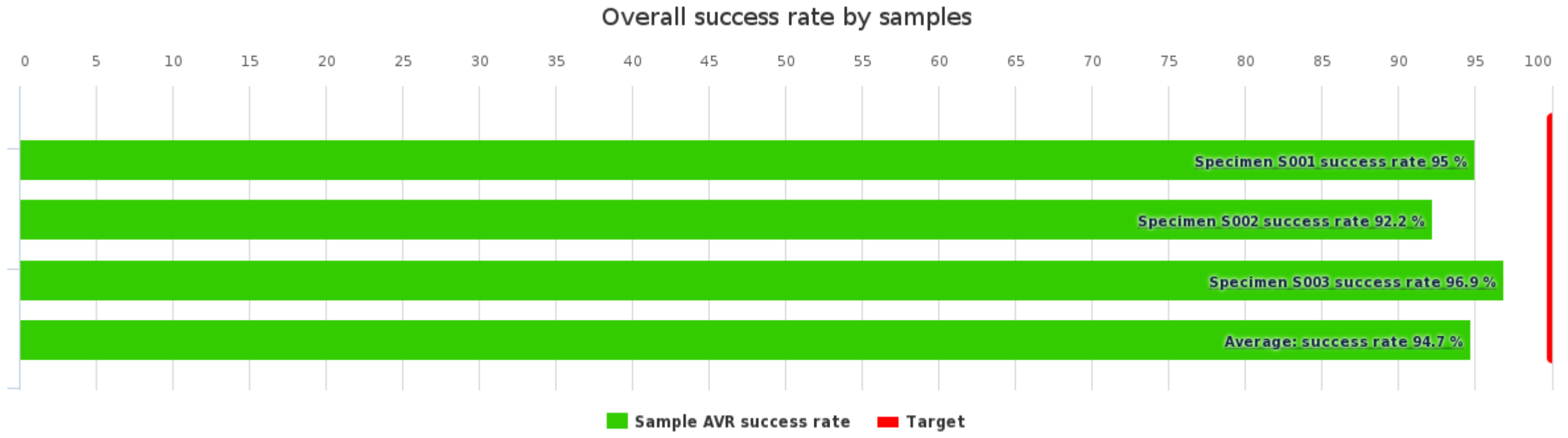
The performance of the laboratory is assessed by the Own success rate (%). The target is 100%. The examination-specific scores obtained by the laboratory in the round are converted to Own success rate per sample (scores/maximum scores\*100). The Laboratory's Own success rate is the average of the sample success rates.

The success rate for the entire round (AVR success rate) is calculated from the total number of scores given to the results per sample (all scores/maximum scores\*100). The AVG success rate of the entire round is the average of the sample success rates. The difference in the Laboratory's Own success rate (%) to the corresponding numbers for the entire round is shown in the table.

**GLOBAL REPORT**

	No of participants	No of responded participants	Response percentage
Faecal parasites multiplex, nucleic acid detection, February, 1-2023	68	62	91.2 %

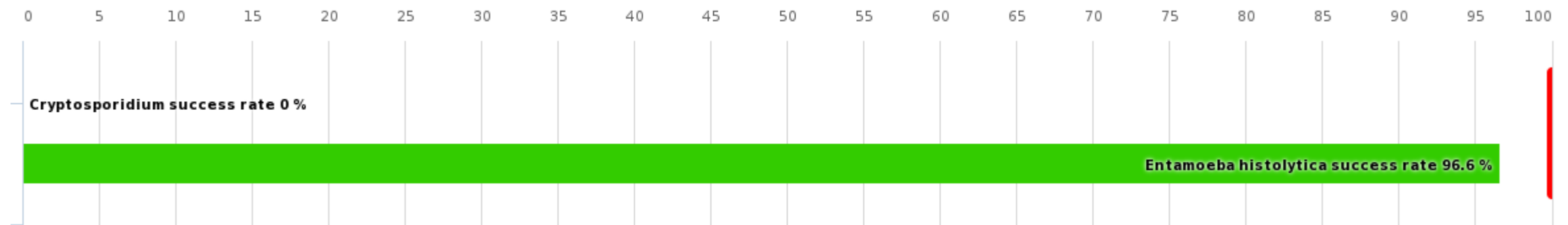
**Summary**



Summary	AVR success rate
Specimen S001	95 %
Specimen S002	92.2 %
Specimen S003	96.9 %
Average:	94.7 %

Specimen S001 | Entamoeba histolytica

Specimen S001 success rate



Specimen S001 results	Responded	AVR success rate
	Number of pathogenic findings	-
	Giardia lamblia	-
	Cryptosporidium	0 %
	Entamoeba histolytica	96.6 %
	Dientamoeba fragilis	-
	Total:	95 %

Specimen S001 Number of pathogenic findings



■ Negative sample, no pathogens detected  
■ Positive sample, 1 pathogen detected

NUMBER OF PATHOGENIC FINDINGS

Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative sample, no pathogens detected	6	-	-
Positive sample, 1 pathogen detected	58	-	-
Total:	64		

GIARDIA LAMBLIA

Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative	63	-	-
Not in test selection	1	-	-
Total:	64		

Method	Negative	Not in test selection	Total:
Ademtech ParaGENIE G-Amoeba Real-Time PCR Kit	1	-	1
Amplicon AmpliTest Giardia intestinalis	1	-	1
AusDiagnostics Faecal Bacteria and Parasites	1	-	1
BD MAX Enteric Parasite Panel	7	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	9	-	9
In house	1	-	1
Mobidiag Amplidiag Stool Parasites	4	-	4
Mobidiag Novodiag Stool Parasites	4	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	2	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	1



R-Biopharm RIDA GENE Parasitic Stool Panel II	1	-	1
Seegene Allplex GI-Parasite Assay	26	-	26
Serosep EntericBio Gastro Panel 2	5	-	5
Total:	63	1	64

**CRYPTOSPORIDIUM**

Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative	62	-	-
Positive	1	0 %	0
Not in test selection	1	-	-
Total:	64	0 %	

Method	Negative	Positive	Not in test selection	Total:
Ademtech ParaGENIE Crypto-Micro Real-Time PCR Kit	1	-	-	1
Amplicon AmpliTest Cryptosporidium parvum	1	-	-	1
AusDiagnostics Faecal Bacteria and Parasites	1	-	-	1
BD MAX Enteric Parasite Panel	7	-	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	9	-	-	9
In house	1	-	-	1
Mobidiag Amplidiag Stool Parasites	4	-	-	4
Mobidiag Novodiag Stool Parasites	4	-	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	2	-	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	1	-	-	1
Seegene Allplex GI-Parasite Assay	25	1	-	26
Serosep EntericBio Gastro Panel 2	5	-	-	5
Total:	62	1	1	64

**ENTAMOEBIA HISTOLYTICA**

Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative	2	0 %	0
Positive	57	100 %	2
Not in test selection	5	-	-
Total:	64	96.6 %	

Method	Negative	Positive	Not in test selection	Total:
Ademtech ParaGENIE G-Amoeba Real-Time PCR Kit	-	1	-	1
Amplicon AmpliTest Entamoeba histolytica	-	1	-	1
AusDiagnostics Faecal Bacteria and Parasites	1	-	-	1
BD MAX Enteric Parasite Panel	-	7	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	-	9	-	9
In house	-	2	-	2
Mobidiag Amplidiag Stool Parasites	-	4	-	4
Mobidiag Novodiag Stool Parasites	-	4	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	-	2	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	-	1	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	-	1	-	1
Seegene Allplex GI-Parasite Assay	1	25	-	26
Total:	2	57	5	64

**DIENTAMOEBIA FRAGILIS**

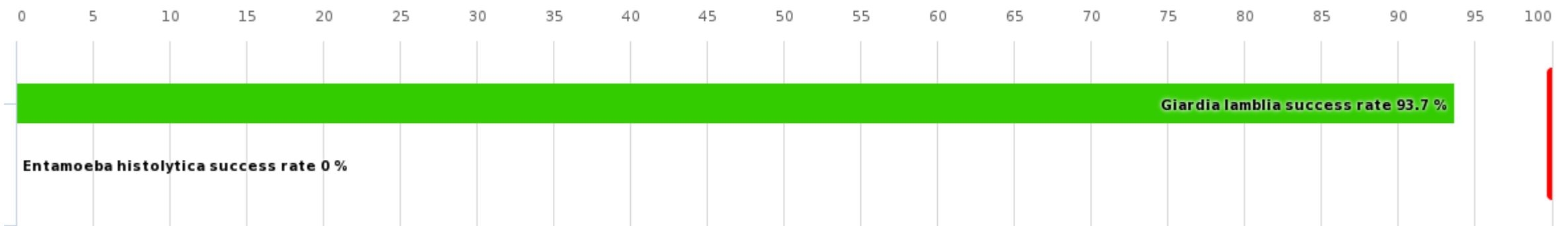
Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative	39	-	-
Not in test selection	25	-	-
Total:	64		

Method	Negative	Not in test selection	Total:
Amplicon AmpliTest Digestive System Parasites II	1	-	1
BioGX Parasitic Enteric CGED - OSR	2	-	2
In house	2	-	2
Mobidiag Amplidiag Stool Parasites	3	-	3
Mobidiag Novodiag Stool Parasites	4	-	4
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	1
Seegene Allplex GI-Parasite Assay	26	-	26

Total:	39	25	64
--------	----	----	----

Specimen S002 | Giardia lamblia

Specimen S002 success rate



Specimen S002 results	Responded	AVR success rate
	Number of pathogenic findings	-
	Giardia lamblia	93.7 %
	Cryptosporidium	-
	Entamoeba histolytica	0 %
	Dientamoeba fragilis	-
	Total:	92.2 %

Specimen S002 Number of pathogenic findings



■ Negative sample, no pathogens detected  
■ Positive sample, 1 pathogen detected

NUMBER OF PATHOGENIC FINDINGS

Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative sample, no pathogens detected	3	-	-
Positive sample, 1 pathogen detected	61	-	-
Total:	64		

GIARDIA LAMBLIA

Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative	4	0 %	0
Weak positive	2	100 %	2
Positive	57	100 %	2
Not in test selection	1	-	-
Total:	64	93.7 %	

Method	Negative	Weak positive	Positive	Not in test selection	Total:
Ademtech ParaGENIE G-Amoeba Real-Time PCR Kit	-	-	1	-	1
Amplicon AmpliTest Giardia intestinalis	-	-	1	-	1
AusDiagnostics Faecal Bacteria and Parasites	-	-	1	-	1
BD MAX Enteric Parasite Panel	-	-	7	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	-	-	9	-	9
In house	-	1	-	-	1
Mobidiag Amplidiag Stool Parasites	1	1	2	-	4

Mobidiag Novodiag Stool Parasites	1	-	3	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	-	-	2	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	-	-	1	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	-	-	1	-	1
Seegene Allplex GI-Parasite Assay	1	-	25	-	26
Serosep EntericBio Gastro Panel 2	1	-	4	-	5
Total:	4	2	57	1	64

**CRYPTOSPORIDIUM**

Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative	63	-	-
Not in test selection	1	-	-
Total:	64		

Method	Negative	Not in test selection	Total:
Ademtech ParaGENIE Crypto-Micro Real-Time PCR Kit	1	-	1
Amplicon AmpliTest Cryptosporidium parvum	1	-	1
AusDiagnostics Faecal Bacteria and Parasites	1	-	1
BD MAX Enteric Parasite Panel	7	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	9	-	9
In house	1	-	1
Mobidiag Amplidiag Stool Parasites	4	-	4
Mobidiag Novodiag Stool Parasites	4	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	2	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	1	-	1
Seegene Allplex GI-Parasite Assay	26	-	26
Serosep EntericBio Gastro Panel 2	5	-	5
Total:	63	1	64

**ENTAMOEBIA HISTOLYTICA**

Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative	58	-	-
Positive	1	0 %	0
Not in test selection	5	-	-
Total:	64	0 %	

Method	Negative	Positive	Not in test selection	Total:
Ademtech ParaGENIE G-Amoeba Real-Time PCR Kit	1	-	-	1
Amplicon AmpliTest Entamoeba histolytica	1	-	-	1
AusDiagnostics Faecal Bacteria and Parasites	1	-	-	1
BD MAX Enteric Parasite Panel	7	-	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	9	-	-	9
In house	2	-	-	2
Mobidiag Amplidiag Stool Parasites	4	-	-	4
Mobidiag Novodiag Stool Parasites	4	-	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	2	-	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	1	-	-	1
Seegene Allplex GI-Parasite Assay	25	1	-	26
Total:	58	1	5	64

**DIENTAMOEBIA FRAGILIS**

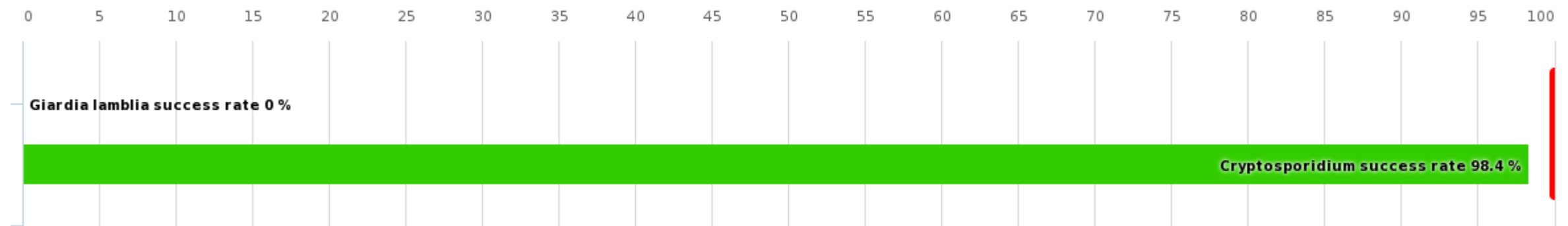
Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative	39	-	-
Not in test selection	25	-	-
Total:	64		

Method	Negative	Not in test selection	Total:
Amplicon AmpliTest Digestive System Parasites II	1	-	1
BioGX Parasitic Enteric CGED - OSR	2	-	2
In house	2	-	2
Mobidiag Amplidiag Stool Parasites	3	-	3
Mobidiag Novodiag Stool Parasites	4	-	4

R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	1
Seegene Allplex GI-Parasite Assay	26	-	26
Total:	39	25	64

### Specimen S003 | Cryptosporidium parvum

Specimen S003 success rate



Specimen S003 results	Responded	AVR success rate
	Number of pathogenic findings	-
	Giardia lamblia	0 %
	Cryptosporidium	98.4 %
	Entamoeba histolytica	-
	Dientamoeba fragilis	-
	Total:	96.9 %

Specimen S003 Number of pathogenic findings



■ Negative sample, no pathogens detected  
■ Positive sample, 1 pathogen detected

### NUMBER OF PATHOGENIC FINDINGS

Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative sample, no pathogens detected	1	-	-
Positive sample, 1 pathogen detected	63	-	-
Total:	64		

### GIARDIA LAMBLIA

Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative	62	-	-
Positive	1	0 %	0
Not in test selection	1	-	-
Total:	64	0 %	

Method	Negative	Positive	Not in test selection	Total:
Ademtech ParaGENIE G-Amoeba Real-Time PCR Kit	1	-	-	1
Amplicon AmpliTest Giardia intestinalis	1	-	-	1
AusDiagnostics Faecal Bacteria and Parasites	1	-	-	1
BD MAX Enteric Parasite Panel	7	-	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	9	-	-	9
In house	1	-	-	1
Mobidiag Amplidiag Stool Parasites	4	-	-	4
Mobidiag Novodiag Stool Parasites	4	-	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	2	-	-	2

R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	1	-	-	1
Seegene Allplex GI-Parasite Assay	25	1	-	26
Serosep EntericBio Gastro Panel 2	5	-	-	5
<b>Total:</b>	<b>62</b>	<b>1</b>	<b>1</b>	<b>64</b>

**CRYPTOSPORIDIUM**

Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative	1	0 %	0
Positive	62	100 %	2
Not in test selection	1	-	-
<b>Total:</b>	<b>64</b>	<b>98.4 %</b>	

Method	Negative	Positive	Not in test selection	Total:
Ademtech ParaGENIE Crypto-Micro Real-Time PCR Kit	-	1	-	1
Amplicon AmpliTest Cryptosporidium parvum	-	1	-	1
AusDiagnostics Faecal Bacteria and Parasites	-	1	-	1
BD MAX Enteric Parasite Panel	-	7	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	-	9	-	9
In house	-	1	-	1
Mobidiag Amplidiag Stool Parasites	-	4	-	4
Mobidiag Novodiag Stool Parasites	-	4	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	-	2	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	-	1	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	-	1	-	1
Seegene Allplex GI-Parasite Assay	1	25	-	26
Serosep EntericBio Gastro Panel 2	-	5	-	5
<b>Total:</b>	<b>1</b>	<b>62</b>	<b>1</b>	<b>64</b>

**ENTAMOEBIA HISTOLYTICA**

Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative	59	-	-
Not in test selection	5	-	-
<b>Total:</b>	<b>64</b>		

Method	Negative	Not in test selection	Total:
Ademtech ParaGENIE G-Amoeba Real-Time PCR Kit	1	-	1
Amplicon AmpliTest Entamoeba histolytica	1	-	1
AusDiagnostics Faecal Bacteria and Parasites	1	-	1
BD MAX Enteric Parasite Panel	7	-	7
BioFire FilmArray Gastrointestinal (GI) Panel	9	-	9
In house	2	-	2
Mobidiag Amplidiag Stool Parasites	4	-	4
Mobidiag Novodiag Stool Parasites	4	-	4
Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	2	-	2
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	1
R-Biopharm RIDA GENE Parasitic Stool Panel II	1	-	1
Seegene Allplex GI-Parasite Assay	26	-	26
<b>Total:</b>	<b>59</b>	<b>5</b>	<b>64</b>

**DIENTAMOEBIA FRAGILIS**

Interpretation	Interpretation count	AVR success rate	Interpretation Score
Negative	39	-	-
Not in test selection	25	-	-
<b>Total:</b>	<b>64</b>		

Method	Negative	Not in test selection	Total:
Amplicon AmpliTest Digestive System Parasites II	1	-	1
BioGX Parasitic Enteric CGED - OSR	2	-	2
In house	2	-	2
Mobidiag Amplidiag Stool Parasites	3	-	3
Mobidiag Novodiag Stool Parasites	4	-	4
R-Biopharm RIDA GENE Parasitic Stool Panel I	1	-	1
Seegene Allplex GI-Parasite Assay	26	-	26



Total:	39	25	64
--------	----	----	----

## Report Info

### PARTICIPANTS

Altogether 68 laboratories from 15 countries participated in this EQA round.

### REPORT INFO

The reported results and the scores are presented in the same summary. Sample specific results are shown in the tables as counts. The expected results are indicated in the tables with green colour. The laboratory's own result is shown by a black radio button .

You can view the result distribution of each specimen and pathogen on screen one by one. The tables can be opened and closed by clicking the screen button at the right end of the row. The result tables of pathogens with a negative result expectation and for which no deviating results have been reported are by default closed for clarification of the report.

The participant's own success is shown both as scores and as success rates (%) generated from the score values. They are presented both in the summary and in the sample specific parts of the report. If you have no results you will get a note: "You have not responded in time, only global report is available."

For information on report interpretation and performance evaluation, please see the "EQAS Interpretation guidelines" in LabScala User instructions. In case you have any questions regarding the reports, please contact the EQA Coordinator.

### SCORING

The participants are scored according to their test selection. The round is scored based on test results when 60% or more of the participants report the expected result and when at least three results are reported.

In general, only the positive findings are scored for each specimen. It is expected that the pathogens indicated in the sample content are to be identified, whereas other deviating findings will reduce the overall success rate. For those specimens that are negative regarding all pathogens included in the panel of this scheme, the scoring is based on the answer given to the question "number of pathogenic findings" and the expected result would be "Negative sample, no pathogens detected". Answer "No test result" and "Invalid/unclear test result" will be excluded from the scoring.

The scoring range is 0-2 points and the following general rules are followed:

2/2 points is given to results that are correct/accepted regarding the expected result  
1/2 point can be given to results that are partly correct/insufficient regarding the expected result  
0/2 point is given to results that are incorrect/false regarding the expected result

The performance of the laboratory is assessed by the Own success rate (%). The target is 100%. The examination-specific scores obtained by the laboratory in the round are converted to Own success rate per sample (scores/maximum scores\*100). The Laboratory's Own success rate is the average of the sample success rates.

The success rate for the entire round (AVR success rate) is calculated from the total number of scores given to the results per sample (all scores/maximum scores\*100). The AVG success rate of the entire round is the average of the sample success rates. The difference in the Laboratory's Own success rate (%) to the corresponding numbers for the entire round is shown in the table.

External Quality Assessment Scheme

## Faecal parasites multiplex, nucleic acid detection

### Round 1, 2023

#### Specimens

The samples were three lyophilized samples. Based on the quality controls conducted by the sample material manufacturer and the results obtained in the round, the sample lots are to be considered as homogeneous, stable and suitable for external quality assessment. The materials were sent without temperature control packaging.

The expected results were as follows:

Sample S001 (LQ769823011)  
*Entamoeba histolytica* positive,  $C_t$  23.2±0.1

Sample S002 (LQ769823012)  
*Giardia lamblia* positive,  $C_t$  28.4±0.9

Sample S003 (LQ769823013)  
*Cryptosporidium parvum* positive,  $C_t$  25.6±0.2

Pre-test method: DNA extraction with MagMax DNA Multi-Sample Ultra Kit and qPCR with QuantStudio instrument.

#### Report info

Please see the description of the data analysis on the last page of the laboratory-specific reports and global reports. It is important to read the Final report first, because it contains important information of the samples and results in each round.

#### Comments – EQA Coordinator

The results of the round were good (average success rate 94.7%). A few erroneous results were reported for each sample. One participant has probably mixed up all the samples or results in the round.

#### Exceptions in scoring

No exceptions.

#### End of report

2023-03-17

#### FINAL REPORT

Product no. 5472

Samples sent	2023-02-14
Round closed	2023-03-09
Expected results	2023-03-14
Final report	2023-03-17

#### Request for correction

Typing errors in laboratory's result forms are on laboratory's responsibility. Labquality accepts responsibility only for result processing. Requests must be notified by writing within three weeks from the date of this letter.

#### Authorized by

EQA Coordinator  
Jaana Paakkanen  
jaana.paakkanen@labquality.fi

#### Expert

MD, PhD, DVM Antti Lavikainen  
University of Helsinki, Finland

#### Labquality Oy

Kumpulantie 15  
FI-00520 HELSINKI  
Finland

Tel. + 358 9 8566 8200  
Fax + 358 9 8566 8280

info@labquality.fi  
www.labquality.com

