

LABQUALITY
We are Quality Makers

2024 PRODUCT CATALOGUE

EXTERNAL QUALITY ASSESSMENT

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LABQUALITY



**We are
Quality Makers**

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Service information

Labquality – EQAS

Labquality is an independent Finnish external quality assessment provider. Labquality has more than 50 years of experience in helping clinical laboratories and POCT sites develop and maintain their performance. Labquality's EQA schemes are internationally recognized high quality programs. The EQA programs have a clinical scope with an educational touch. Part of the EQA production is outsourced to expert laboratories and national partners.

Integrated EQA service (EQA3)

Labquality is the first EQA provider that has integrated pre-analytical, analytical and post-analytical phases to its EQA programs. Advanced and traditional EQA schemes have been designed to fully support the total quality management system of the participating laboratories and fulfill ISO 15189 requirements concerning the extra-analytical phases. In addition to the samples, the integrated schemes include pre- and/or post-analytical questionnaires concerning the scope of the scheme.

Quality management

Labquality's management system is certified according to ISO 9001 (DQS) and the main EQA schemes are accredited according to ISO 17043 (PT02/FINAS). The scope of accreditation is available on the FINAS website: www.finas.fi, and the accreditation status of the EQA schemes is available on our website: www.labquality.com. The list of accredited schemes will be provided upon request.

EQA service availability

Labquality has customers in over 60 countries in Europe, Asia, America and North Africa. Service is localized by 40 national partners. All digital schemes, including pre-analytical schemes and diagnostic schemes for anatomic pathology, are available globally. With only a few exceptions all schemes are globally available through national partner. For direct customers, the program selection is limited to the schemes with stable and non-hazardous sample materials.

Enrolment and prices

Labquality has annual programs and pricing. Participants shall place their orders for the following year before the end of November to ensure their participation in all needed EQA rounds. Enrolment is possible during the calendar year, but only part of the EQA rounds may be available. To place an order, please contact our national partner in your country or Labquality's customer service at info@labquality.fi.

Distributions

Labquality's specimen logistics system is accepted and continuously audited as part of accreditation according to the ISO 17043 (PT02/FINAS) standard. Specimens are shipped according to the annual schedule. Labquality retains the right to make changes in the schedule.

LabScala EQA portal

Partners and participants are able to handle the whole EQA process from orders to reports through a modern web based software, LabScala. The EQA process is designed to go along with the laboratory process from pre-analytics to post-analytics. Easy availability and user-friendly interface guarantee an advanced experience.

Certificate

A certificate of participation will be provided upon request at the end of the calendar year. The certificate refers to EQA reports to evaluate the performance of the participant.

Customer service

Please contact Labquality's international partners (listed on our website: www.labquality.com) or our customer service: info@labquality.fi.

How to use the catalogue

The diagram illustrates the layout of an EQA scheme card in the catalogue. The card is divided into several sections:

- Header:** Contains the "Scheme code and name" (1234 Scheme name) and "Results processed" (a circular progress indicator).
- Specimens/Examinations:** A section for listing specimens and examinations.
- Notes:** A section for additional notes.
- Rounds (delivery months):** A horizontal bar chart showing participation across 12 months. Green dots indicate participation in months 2, 5, 8, and 11.
- Additional info:** A section for additional information, including tags for "EQA³", "NEW", and "POCT".

Results processed: The number shows how many results from different analyzers or tests within the same laboratory are allowed depending on scheme, when the sample volume is sufficient.

Updates for 2024

New schemes and products

2707	Maternal serum screening
8205	Pipette control
5254	Mycoplasma genitalium, drug resistance, nucleic acid detection
5253	Helicobacter pylori, nucleic acid detection
5088	HIV, antibodies and antigen detection, extra set of samples
5231	Mycobacterium tuberculosis, drug resistance, nucleic acid detection, extra set of samples
4389	D-dimer, extra set of samples
5683	Mpox (Monkeypox virus), nucleic acid detection
8850	DNA sequencing (EQUALIS)
8851	Quantification of ABO antibodies (EQUALIS)
8852	Titration of erythrocyte antibodies (EQUALIS)
8853	Iohexol (EQUALIS)
8854	Phosphatidyl ethanol in blood (EQUALIS)
8855	Alcohol biomarkers in urine (EQUALIS)

Changes in distribution schedule

2754	Faecal Elastase (2 rounds/year)
5261	Fungal infections, nucleic acid detection (April and September)
5562	Multiple respiratory virus, nucleic acid detection (4 rounds/year)
5556	HSV1&2/VZV/Treponema pallidum, nucleic acid detection (April and October)

Discontinued schemes and products

4151	Reticulocyte count, automated: Cell-Dyn 4000, Sapphire
4152	Reticulocyte count, automated: Coulter Gens, LH750
4155	Reticulocyte count, automated: Cell Dyn 3200, 3500, 3700, Ruby
4235	Leucocyte differential count, 5-part, automated: Coulter ACT5-diff

Changes in scope, specimens or parameters

2749	Faecal occult blood, quantitative: New artificial stool sample including human Hb (rounds 2 and 4).
5100	Blood culture (incl. sepsis multiplex methods): 3 samples/round.
5101	Blood culture, screening (incl. sepsis multiplex methods): 3 samples/round.
5670	Influenza virus A+B and RS virus, nucleic acid detection: 3 samples/round.
5556	HSV1&2/VZV/Treponema pallidum, nucleic acid detection: 3 samples/round.
5300	Respiratory infections multiplex, nucleic acid detection. Examinations: Bocavirus added.
5420	Toxoplasma, antibodies. Examinations: IgA antibodies removed.
5190	Faecal culture. Examinations: Antimicrobial susceptibility (rounds 2 and 4) added.
5930	Autoimmune liver disease and gastric parietal cell antibodies. Examinations: LKMAb removed.

Planned pilot schemes

Pilot studies are EQA schemes under development. Information about pilot studies and schedules are updated on our website: <https://www.labquality.com/external-quality-assessment/new-schemes/>

Clinical chemistry

The clinical chemistry portfolio covers areas of allergology, basic chemistry, cardiac markers, diabetes analysis, endocrinology, special chemistry, specific proteins, tumour markers and urine analysis. For routine chemistry needs, schemes with both one and two level samples enabling assessment of more than 50 analytes are available. A wide selection of schemes specifically tailored for POCT devices are also available, including e.g. those for drug abuse screening, glucose meters and troponin detection.

Clinical chemistry » Allergology

	1	2	3	4	5	6	7	8	9	10	11	12
2675 Allergen component (UK NEQAS)	1		•		•	•		•		•		•
Specimens: 2 liquid human serum samples for allergen component tests. Examinations: Allergen component test which covers recombinant allergens as well as the ISAC system. Notes: Participation to all rounds required. Should be ordered until the beginning of November. Limited availability.												
	1	2	3	4	5	6	7	8	9	10	11	12
2681 Allergy in vitro diagnostics (SKML)	1	•			•			•		•		
Specimens: 3 liquid human serum samples for specific IgEs with 3 allergens, 2 mixes and total IgE in each and some allergen components, 0.5 mL. Examinations: Total IgE, specific IgEs, allergen mixes and allergen components. Notes: Participation to all rounds required. Should be ordered until the beginning of November. All samples are distributed in February.												
	1	2	3	4	5	6	7	8	9	10	11	12
2670 Allergy in vitro diagnostics (UK NEQAS)	1		•		•	•		•		•		•
Specimens: 2 liquid human serum samples for specific IgEs with 4 allergens in each specimen, 0.5 mL each and 1 serum specimen for total IgE, 0.5 mL. Examinations: Total IgE and specific IgEs. Notes: Participation to all rounds required. Should be ordered until the beginning of November. Limited availability.												
	1	2	3	4	5	6	7	8	9	10	11	12
2680 Eosinophil cationic protein	1		•		•	•		•		•		•
Specimens: 1 lyophilized human serum sample, 0.3 mL. Examinations: ECP. Notes: Results are processed in connection with total IgE results of scheme 2670.												
	1	2	3	4	5	6	7	8	9	10	11	12
2685 Tryptase (UK NEQAS)	1	•		•	•		•		•		•	
Specimens: 2 liquid human serum samples. Examinations: Tryptase. Notes: Participation to all rounds required. Should be ordered until the beginning of November. Limited availability.												

Clinical chemistry » Basic chemistry

	1	2	3	4	5	6	7	8	9	10	11	12
2100 Basic chemistry, POCT analyzers	3	•			•			•			•	
Specimens: 2 human serum samples, 1 mL. Examinations: Alanine aminotransferase, albumin, alkaline phosphatase, amylase (total and pancreatic), aspartate aminotransferase, calcium, chloride, HDL cholesterol, cholesterol, creatinekinase, creatinine, gamma glutamyltransferase, glucose, lactate dehydrogenase, magnesium, phosphorus, potassium, sodium, total protein, triglycerides, urea, uric acid. Notes: For clinical laboratories and POCT sites. Only for dry chemistry analyzers. If you are not sure whether your device is a POCT meter or an analyzer, please contact our customer service.												
	1	2	3	4	5	6	7	8	9	10	11	12
2730 Erythrocyte sedimentation rate	3		•		•				•		•	
Specimens: 1 artificial blood cell suspension, ~ 4 mL. Examinations: ESR. Notes: Not suitable for Algor iSed.												

2731 Erythrocyte sedimentation rate: Alifax-analyzers; Greiner tube	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 test tubes containing synthetic latex solution, 3 mL.													
Examinations: ESR.													
2732 Erythrocyte sedimentation rate: Alifax-analyzers; Sarstedt tube	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 test tubes containing synthetic latex solution, 3 mL.													
Examinations: ESR.													
2750 Faecal occult blood, qualitative	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 preparations that include human haemoglobin, 0.5 mL.													
Examinations: Qualitative detection of Hb in human faeces.													
Notes: For clinical laboratories and POCT sites.													
2749 Faecal occult blood, quantitative	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid samples (March, Sept) and 2 artificial stool samples (June, Dec) including human haemoglobin.													
Examinations: Quantitative determination of Hb in human faeces (iFOB/FIT).													
Notes: The liquid samples assess the analytical process only, the artificial stool samples assess both the preanalytical and analytical processes. For clinical laboratories and POCT sites.													
2114 Haemoglobin, 1-level, POCT	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 1 bovine sample, 1 mL.													
Examinations: Haemoglobin.													
Notes: Only for POCT devices. Not suitable for Diaspect, CompoLab, Hemocue 301 or Hemocue 801.													
2115 Haemoglobin, 1-level HemoCue 801 and HemoCue 301	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 1 bovine sample, 1 mL.													
Examinations: Haemoglobin.													
Notes: Only for HemoCue 801 and HemoCue 301.													
2113 Haemoglobin, 3-level samples, cell counters and analyzers	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 human whole blood control samples, 1 mL (low, medium and high concentration).													
Examinations: Haemoglobin linearity with three samples. Reference values will be provided in the summary report.													
Notes: For cell counters and analyzers.													
2112 Haemoglobin, 3-level samples, POCT	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 bovine or human samples, 1 mL (low, medium and high concentration).													
Examinations: Haemoglobin linearity with three samples.													
Notes: Only for POCT devices. Not suitable for Diaspect.													

Clinical chemistry » Cardiac markers

1541 CRP, low concentration	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 1 Human serum sample, 1 mL.													
Examinations: CRP.													
Notes: CRP, low concentration sample is included in product 2541 Myocardial markers and CRP.													
2540 Myocardial markers	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 Human serum samples, 1 mL.													
Examinations: CK-MB mass, myoglobin, quantitative troponin I, quantitative troponin T. Not for CKMB activity!													
Notes: Suits clinical laboratory analyzers. See also scheme 2530 Troponin I and T, detection for POCT. If you are not sure whether your device is a POCT meter or an analyzer, please contact our customer service.													

		1	2	3	4	5	6	7	8	9	10	11	12
			●		●		●			●		●	
		3											
		2541 Myocardial markers and CRP, low concentration											
		Specimens: 2 Human serum samples for myocardial markers, 1 mL and one for CRP, 1 mL. Examinations: CK-MB mass, myoglobin, quantitative troponin I, quantitative troponin T and CRP, low concentration. Not for CKMB activity!											
		Notes: Suits clinical laboratory analyzers. See also scheme 2530 Troponin I and T, detection for POCT. If you are not sure whether your device is a POCT meter or an analyzer, please contact our customer service.											

		1	2	3	4	5	6	7	8	9	10	11	12
		●			●			●			●		
		3											
		2690 Natriuretic peptides 1, B-type, NT-ProBNP											
		Specimens: 2 liquid samples, 3 mL. Examinations: NT-ProBNP.											
		Notes: Suits both clinical laboratories and POCT sites. Also suitable for Roche Cardiac Reader and cobas h232.											

		1	2	3	4	5	6	7	8	9	10	11	12
		●			●			●			●		
		3											
		2691 Natriuretic peptides 2, B-type, BNP											
		Specimens: 2 liquid samples, 3 mL. Examinations: BNP.											
		Notes: For clinical laboratories and POCT sites.											

		1	2	3	4	5	6	7	8	9	10	11	12
		●			●		●			●		●	
		3											
		2530 Troponin I and troponin T, detection, POCT											
		Specimens: 2 fresh human serum samples or 2 liquid human samples, 1 mL. Examinations: Detection of troponin I and troponin T.											
		Notes: Qualitative and quantitative results are processed. This scheme is only for POCT, scheme 2540 is for analyzers. If you are not sure whether your device is a POCT meter or an analyzer, please contact our customer service.											

Clinical chemistry » Diabetes analysis

		1	2	3	4	5	6	7	8	9	10	11	12
		●				●				●		●	
		3											
		2570, 2580, 2590 Glucose meters											
		Device specific product codes: 2570 for all glucose meters except Contour, HemoCue and On Call Plus 2580 for HemoCue meters 2590 for Contour meters											
		Specimens: 1 whole blood or plasma sample, 1 mL. Examinations: Glucose. Notes: 5 results processed with one order if sample volume is sufficient and devices belong to the same product group.											

		1	2	3	4	5	6	7	8	9	10	11	12
		●			●		●		●		●		●
		3											
		1261 Haemoglobin A1c, liquid samples											
		Specimens: 2 liquid blood samples, 0.5 mL. Examinations: HbA1c.											
		Notes: Not suitable for Afinion instruments.											

		1	2	3	4	5	6	7	8	9	10	11	12
					●		●				●		●
		3											
		1263 Haemoglobin A1c, liquid samples, POCT											
		Specimens: 2 liquid blood samples, 0.5 mL. Examinations: HbA1c.											
		Notes: Only for POCT devices. Not suitable for Afinion instruments.											

		1	2	3	4	5	6	7	8	9	10	11	12
				●							●		
		3											
		2526 Ketones (beta-hydroxybutyrate)											
		Specimens: 2 human serum samples, 0.4 mL. Examinations: beta-hydroxybutyrate.											
		Notes: For POCT sites and clinical laboratories. 3 results processed with one order if sample volume is sufficient.											

Clinical chemistry » Endocrinology

		1	2	3	4	5	6	7	8	9	10	11	12
		●			●	●	●		●		●	●	●
		3											
		2300, 2300S Hormones A: Basic analytes of hormone and immunochemistry											
		Specimens: 2 human serum samples with differing concentrations, 3 mL each. Liquid serum sample (one level) included in Apr and Oct rounds. Pre- and/or post-analytical cases in part of the rounds. Examinations: Ferritin, folate, hCG (total, intact), T3, free T3, T4, free T4, TSH, vitamin B12, active vitamin B-12, pre- and/or post-analytical indicators.											
		Notes: 2300S is a limited version of the scheme available for laboratories performing testing of 1–5 analytes. For additional set of samples, order scheme 1300. Product 2300S does not include reporting from multiple analyzers or methods.											

		1	2	3	4	5	6	7	8	9	10	11	12
		●			●	●	●		●		●	●	●
		3											
		1300 Hormones A, extra set of samples											
		Specimens: 2 human serum samples, 3 mL.											
		Notes: Only in connection with scheme 2300.											

	1	2	3	4	5	6	7	8	9	10	11	12
2301, 2301S Hormones B: Steroid and peptide hormones 3		•		•		•		•		•		•
<p>Specimens: 2 human serum samples with differing concentrations, 3 mL. Liquid serum sample (one level) included in Apr, Aug and Dec rounds. Pre- and/or postanalytical cases in part of the rounds.</p> <p>Examinations: Androstenedione, aldosterone, C-peptide, cortisol, DHEAS, estradiol, FSH, gastrin, growth hormone, IGF-1, insulin, LH, progesterone, 17-OH-progesterone, prolactin, SHBG, testosterone, free testosterone, TBG, pre- and/or post-analytical indicators.</p> <p>Notes: Reference values for 1 analyte in liquid serum will be provided. 2301S is a limited version of the scheme available for laboratories performing testing of 1–5 analytes. For additional set of samples, order scheme 1301. Product 2301S does not include reporting from multiple analyzers or methods.</p>												

EOA³

	1	2	3	4	5	6	7	8	9	10	11	12
1301 Hormones B, extra set of samples 3		•		•		•		•		•		•
<p>Specimens: 2 human serum samples, 3 mL.</p> <p>Notes: Only in connection with scheme 2301.</p>												

	1	2	3	4	5	6	7	8	9	10	11	12
2250 Parathyroid hormone, intact 3			•							•		
<p>Specimens: 2 lyophilized human serum samples, 3 mL.</p> <p>Examinations: PTH, intact.</p>												

	1	2	3	4	5	6	7	8	9	10	11	12
2704 ACTH and cortisol 3						•					•	
<p>Specimens: 2 lyophilized human serum samples, 3 mL.</p> <p>Examinations: Adrenocorticotrophic hormone (ACTH) and Cortisol.</p>												

	1	2	3	4	5	6	7	8	9	10	11	12
2706 Salivary Cortisol 3			•						•			
<p>Specimens: 2 liquid or lyophilized simulated salivary samples.</p> <p>Examinations: Salivary cortisol.</p>												

Clinical chemistry » General long-term clinical chemistry, known concentration

	1	2	3	4	5	6	7	8	9	10	11	12
1031 DayTrol, human serum 1	•	•	•	•	•	•	•	•	•	•	•	•
<p>Specimens: 1 lyophilized human serum sample, 5 mL.</p> <p>Examinations: Alanine aminotransferase, albumin, alkaline phosphatase, amylase, aspartate aminotransferase, bilirubin, calcium, chloride, cholesterol, cholesterol HDL, creatine phosphokinase, creatinine, gamma-glutamyltransferase, glucose, iron, lactate, lactate dehydrogenase, lithium, magnesium, osmolality, phosphorus, potassium, protein, sodium, thyreotropin, thyroxine, thyroxine free, transferrin, transferrin receptor, triglycerides, urea, uric acid.</p> <p>Notes: The same sample is analyzed on a daily or a weekly basis. Monthly averages and CV% are compared with other participants. Minimum order quantity of 10 bottles per year. Monthly reporting is included.</p>												

Clinical chemistry » General short-term clinical chemistry, unknown concentration

	1	2	3	4	5	6	7	8	9	10	11	12
1072 1072S General clinical chemistry, 1-level sample (Serum A) 3	•	•	•	•	•	•	•	•	•	•	•	•
<p>Specimens: Lyophilized serum sample, 3 - 5 mL, samples are selected to cover a wide concentration range.</p> <p>Examinations: Alanine aminotransferase, albumin, alkaline phosphatase, alpha-1-antitrypsin, alpha-1-glykoprotein, amylase, amylase (pancreatic), aspartate aminotransferase, bilirubin, calcium, calcium (ionized, actual), calcium (ionized, pH 7.4), chloride, cholesterol, cholesterol HDL, cholesterol LDL, cortisol, creatine phosphokinase, creatinine, ferritin, gamma-glutamyltransferase, glucose, haptoglobin, IgA, IgE, IgG, IgM, iron, lactate, lactate dehydrogenase, lithium, magnesium, oroso-mucoid, osmolality, phosphorus, potassium, protein, selenium, sodium, thyreotropin, thyroxine, thyroxine free, TIBC, transferrin, transferrin receptor, triglycerides, urea, uric acid.</p> <p>Notes: Samples for multiple rounds shipped simultaneously. Monthly processing of results included. 1072S is a limited version of the scheme available for laboratories performing testing of 1–5 analytes. Product 1072S does not include reporting from multiple analyzers or methods.</p>												

	1	2	3	4	5	6	7	8	9	10	11	12
2050 General clinical chemistry, 2-level sera (serum B and C) 3		•		•		•		•		•	•	
<p>Specimens: 2 liquid human serum samples covering a wide concentration range, 3–5 mL.</p> <p>Examinations: Alanine aminotransferase, albumin, alfa-1-antitrypsine, alfa-1-glycoprotein, alkaline phosphatase, amylase, pancreas amylase, aspartate aminotransferase, bilirubin, ferritin, phosphate, glucose, glutamyltransferase, haptoglobin, IgA, IgE, IgG, IgM, potassium, calcium, ionized calcium, ionized calcium pH corrected (7.4), chloride, cholesterol, HDL cholesterol, LDL cholesterol, cortisol, creatine kinase, creatinine, copper, lactate, lactate dehydrogenase, lipase, lithium, magnesium, sodium, osmolality, protein, iron binding capacity, iron, selenium, zinc, transferrin, transferrin receptor, triglycerides, tri-iodio-thyronine, thyrotropin, tyroxine, free tyroxine, urea, uric acid.</p> <p>Notes: Comparison of two different concentration ranges simultaneously. Reference method values available occasionally for some of the analytes.</p>												

EOA³

2610 Acid-base status and electrolytes

1

1 2 3 4 5 6 7 8 9 10 11 12

Specimens: 3 buffered artificial samples, 2.5 mL.

Examinations: Chloride, creatinine, glucose, ionized calcium, ionized magnesium, lactate, pCO₂, pH, pO₂, potassium, sodium, urea, base excess, HCO₃.

Notes: Order one sample set for each analyzer. For clinical laboratories and POCT sites.

2510 Alcohol in blood: Ethanol + methanol + isopropanol

3

1 2 3 4 5 6 7 8 9 10 11 12

Specimens: Ethanol: 2-level whole blood samples. Methanol and isopropanol: 1-level whole blood samples.

Examinations: Ethanol, methanol, isopropanol.

2516 Alcohol in blood: Ethylene glycol

3

1 2 3 4 5 6 7 8 9 10 11 12

Specimens: 1-level whole blood samples.

Examinations: Ethylene glycol.

2511 Alcohol in serum: Ethanol + methanol + isopropanol + acetone

3

1 2 3 4 5 6 7 8 9 10 11 12

Specimens: Ethanol: 2-level serum samples. Methanol, isopropanol and acetone: 1-level serum samples.

Examinations: Ethanol, methanol, isopropanol, acetone.

2517 Alcohol in serum: Ethylene glycol

3

1 2 3 4 5 6 7 8 9 10 11 12

Specimens: 1-level serum samples.

Examinations: Ethylene glycol.

2105 Ammonium ion

1

1 2 3 4 5 6 7 8 9 10 11 12

Specimens: 2 serum based or buffered samples.

Examinations: Ammonium ion.

2210 Angiotensin convertase (ACE)

3

1 2 3 4 5 6 7 8 9 10 11 12

Specimens: 1 liquid and 1 lyophilized human serum sample, 1 mL.

Examinations: ACE.

2520 Bile acids

3

1 2 3 4 5 6 7 8 9 10 11 12

Specimens: 2 pooled human serum samples, 0.5 mL.

Examinations: Bile acids.

2109 Bilirubin, conjugated

3

1 2 3 4 5 6 7 8 9 10 11 12

Specimens: 2 lyophilized or liquid samples.

Examinations: Total bilirubin, conjugated bilirubin.

2040 Bilirubin, neonatal

3

1 2 3 4 5 6 7 8 9 10 11 12

Specimens: 2 lyophilized or liquid samples.

Examinations: Bil, neo.

8805 Cystatin C [DEKS]

5

1 2 3 4 5 6 7 8 9 10 11 12

Two rounds per year

Specimens: 2 human plasma samples with reference target values, 0.75 mL.

Examinations: P-Cystatin C, P-Creatinine, P-eGFR.

Notes: Participation to all rounds required.

2754 Faecal elastase	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized faecal specimens, 0.5 mL.	3											
Examinations: Elastase.												
2753 Gastric biomarkers	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples, 3 mL.	3											
Examinations: Pepsinogen I, Pepsinogen II, Gastrin-17, Helicobacter pylori Ab.												
2150 Haemoxymeters	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid (1.2 mL) samples.	1											
Examinations: FO2Hb, FCOHb, FMETHb, ctHb, sO2.												
Notes: Order one sample set for each analyzer.												
8816 Homocysteine [DEKS]	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 plasma samples 1 mL each.	1											
Examinations: P-Homocysteine.												
Notes: All samples are distributed in February.												
8853 Iohexol (EQUALIS)	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: Two plasma samples.												
Examinations: P—Iohexol, Pt—GFR (Iohexol) absolute, Pt—GFR (Iohexol) relative.												
Notes: Organized in cooperation with Equalis. Registration before 1 January.												
8815 Methyl malonate [DEKS]	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 serum samples 1,5 mL each.	1											
Examinations: P-Methylmalonat.												
Notes: All samples are distributed in February.												
2651 Nasal swab cells	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 4 digital images of MGG and methylene eosin stained samples.	1											
Examinations: Eosinophils, neutrophils.												
8854 Phosphatidyl ethanol in blood (EQUALIS)	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: Three EDTA blood samples.												
Examinations: B -PEth.												
Notes: Organized in cooperation with Equalis. Registration before 1 January.												
2652 Sputum cells	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 4 digital images of MGG and methylene eosin stained samples	1											
Examinations: Eosinophils, neutrophils												
2640 Synovial fluid crystals	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2-3 slides prepared from patient samples.	3											
Examinations: Monosodium urate monohydrate and calcium pyrophosphate dihydrate crystals.												
2410 Therapeutic drugs	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid or lyophilized human serum samples, 5 mL.	3											
Examinations: Amikasin, amitriptyline, carbamazepine, carbamazepine free, cyclosporine, digoxin, disopyramide, ethosuximide, flecainide, gentamycin, lidocaine, lithium, methotrexate, NAPA, netilmycin, nortriptyline, paracetamol												
(acetaminophen), phenobarbital, phenytoin, phenytoin free, primidone, procainamide, quinidine, salicylate, theophylline, tobramycin, tricyclics, valproic acid, valproic acid free, vancomycin.												
2480 Vitamin A, E and D metabolites	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid human serum samples, 1 mL. Pre- and/or post-analytical cases in part of the rounds.												
Examinations: Vitamin A, vitamin E, 25(OH)D-vitamin, 1,25(OH)2-D-vitamin, pre- and/or post-analytical indicators.												
Notes: Target values for 25(OH)D vitamin metabolite are provided.												

	1	2	3	4	5	6	7	8	9	10	11	12
2481 Vitamin A, E and D metabolites, extra set of samples				●							●	
Specimens: 2 liquid human serum samples, 2 mL. Notes: Only in connection with scheme 2480.												

	1	2	3	4	5	6	7	8	9	10	11	12
2525 5-hydroxyindoleacetic Acid (5-HIAA)				●						●		
Specimens: 2 serum samples. Examinations: 5-HIAA.												

Clinical chemistry » Specific proteins

	1	2	3	4	5	6	7	8	9	10	11	12
2020 C-reactive protein (CRP) for analyzers		●		●		●		●		●		●
Specimens: 2 liquid human serum or plasma samples, 1 mL. Examinations: CRP. Notes: Scheme is designed only for clinical chemistry analyzers. Order scheme 2132 for POCT CRP meters. If you are not sure whether your device is a POCT meter or an analyzer, please contact our customer service.												

POCT	2132 C-reactive protein (CRP), POCT											
	3											
	1	2	3	4	5	6	7	8	9	10	11	12
		●		●		●		●		●	●	
Specimens: 2 liquid human plasma samples, 1 mL.												
Examinations: CRP.												
Notes: Only for quantitative POCT CRP meters. Not suitable for LumiraDx. If you are not sure whether your device is a POCT meter or an analyzer, please contact our customer service.												

	1	2	3	4	5	6	7	8	9	10	11	12
2140 Decalotransferrin [EQUALIS]	●		●		●			●		●		●
Specimens: 2 human plasma samples, varying concentration of CDT. Examinations: CDT. Notes: Participation to all rounds required.												

	1	2	3	4	5	6	7	8	9	10	11	12
2751 Faecal calprotectin		●			●			●			●	
Specimens: 2 lyophilized faecal specimens, 0.5 mL. Examinations: Calprotectin.												

	1	2	3	4	5	6	7	8	9	10	11	12
2281 Interleukin-6		●			●			●			●	
Specimens: 2 lyophilized samples. Examinations: IL-6.												

EQA ³		1	2	3	4	5	6	7	8	9	10	11	12
	2200	Lipids and lipoproteins											
	3		●			●				●			●
	<p>Specimens: 2 fresh human serum samples, 0.5–1 mL. Pre- and/or post-analytical cases in part of the rounds.</p> <p>Examinations: Cholesterol, HDL cholesterol, LDL cholesterol, lipoprotein apo A1, lipoprotein apo A2, lipoprotein apo B, lipoprotein (a), triglycerides, pre- and/or post-analytical indicators.</p> <p>Notes: Separate round for Lp(a), see scheme 2202.</p>												

	1	2	3	4	5	6	7	8	9	10	11	12
2202 Lipoprotein a		●			●				●			●
Specimens: 1 liquid or lyophilized human serum preparation. Examinations: Lp(a).												

	1	2	3	4	5	6	7	8	9	10	11	12
2280 Procalcitonin				●						●		
Specimens: 2 lyophilized samples. Examinations: Procalcitonin. Notes: Only for quantitative methods.												

	1	2	3	4	5	6	7	8	9	10	11	12
2160 Proteins in cerebrospinal fluid				●					●			
Specimens: 1 cerebrospinal fluid sample 1–3 mL and 1 human serum sample, 1 mL. Examinations: Cerebrospinal fluid: Albumin, IgG, total protein, IgG index. Serum: Albumin, IgG.												

	1	2	3	4	5	6	7	8	9	10	11	12	
2240 Proteins, electrophoresis	3												EQA ³
Specimens: 2 liquid or lyophilized human serum samples, 1 mL Pre- and/or post-analytical cases in part of the rounds.													
Examinations: Electrophoresis, contains immunofixation, pre- and/or post-analytical indicators.													

		1	2	3	4	5	6	7	8	9	10	11	12
2230	Proteins, immunochemical determinations	3	<div></div>		<div></div>		<div></div>			<div></div>			
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Clinical chemistry » Tumour markers

	1	2	3	4	5	6	7	8	9	10	11	12
2703 Anti-Müllerian hormone	3											
Specimens: 2 liquid human serum samples, 1 mL.												
Examinations: Anti-Müllerian hormone.												

	1	2	3	4	5	6	7	8	9	10	11	12
2226 Prostate specific antigen	3											
Specimens: 2 liquid human serum samples, 1 mL.												
Examinations: PSA, complexed PSA, free PSA, free/total PSA ratio.												

	1	2	3	4	5	6	7	8	9	10	11	12
2700,2700S Tumour markers	3	●			●			●			●	
<p>Specimens: 2 liquid human serum samples, 2 mL.</p> <p>Examinations: AFP, CA 125, CA 153, CA 199, CEA, ferritin, hCG (total, intact, beta-subunit), PSA, PSA free, PSA free/total index, TG, TG antibodies, beta-2-microglobulin, NSE, HE4.</p>												
<p>Notes: 2700S is a limited version of the scheme available for laboratories performing testing of 1–5 analytes. Product 2700S does not include reporting from multiple analyzers or methods.</p>												

	1	2	3	4	5	6	7	8	9	10	11	12
2701 Tumour markers, extra set of samples		●			●			●			●	
Specimens: 2 liquid human serum samples, 2 mL.												
Notes: Only in connection with scheme 2700.												

	1	2	3	4	5	6	7	8	9	10	11	12	
2707 Maternal serum screening	3												
Specimens: 2 lyophilized samples.													
Examinations: AFP, b-hCG, inhibin A, PAPP-A, total hCG, unconjugated estriol.													

Clinical chemistry » Urine analysis

	1	2	3	4	5	6	7	8	9	10	11	12	
8855 Alcohol biomarkers in urine (EQUALIS)	1	Six rounds per year											NEW
Specimens: Urine sample. Examinations: U-Ethyl glucuronide (EtG), U-Ethyl sulphate (EtS).													
Notes: Organized in cooperation with Equalis. Registration before 1 January.													

													1	2	3	4	5	6	7	8	9	10	11	12				
3240 Albumin and creatinine in urine													3															
Specimens: 2 liquid human urine samples with spiked albumin and creatinine, 4 mL.													Examinations: Albumin, creatinine, albumin-creatinine ratio. Notes: Only for quantitative methods.															

	1	2	3	4	5	6	7	8	9	10	11	12	
3300 Drug of abuse screening in urine	3	●				●			●				POCT
Specimens: 2 authentic samples, 5 mL.													
Examinations: Alpha-PVP, Amphetamine, Barbiturates, Benzodiazepines, Buprenorphine, Cannabinoids, Carbamazepine, Cocaine +metabolites, Codeine, Dextropropoxyphene, EDDP, Fencyclidine, Fentanyl, Gammahydroxybutyrate (GHB), Ketamine, LSD, MDMA, MDPV, Metamphetamine, Methaqualone, Methadone +metabolites, Methylphenidate, Morphine, Opiates Oxycodone, Paracetamol, Pregabalin, Salicylate, Tricyclic- antidepress. Tramadol.													
Notes: For clinical laboratories and POCT sites. Expert laboratory confirmatory results are provided. Results are reported as positive or negative.													

POCT	3270 Pregnancy test	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 fresh urine samples, 1 mL. Examinations: Qualitative hCG.													
	Notes: For clinical laboratories and POCT sites.													
	3170 Urine bacterial screening with automated analyzers	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 1 liquid sample and lyophilized synthetic urine sample containing bacteria.													
	Examinations: Bacterial, erythrocytes and leukocytes counting.													
	3200 Urine, identification of cells and other particles	1	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 4 digital images.													
	Examinations: Identification of cells and other particles.													
	3160 Urine quantitative chemistry	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 1 liquid urine, 10 mL.													
	Examinations: Albumin, amylase, calcium, chloride, cortisol-free, creatinine, glucose, inorganic phosphate, magnesium, osmolality, pH, potassium, protein, relative density, sodium, urea, uric acid.													
POCT	3100 Urine strip test A	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 1 lyophilized urine sample with varying concentrations, 15 mL. Examinations: Glucose, ketone bodies, leukocytes, nitrite, pH, protein, blood (erythrocytes), relative density.													
	Notes: For clinical laboratories and POCT sites. Water for dissolution available, see scheme 3101, should be ordered separately.													
POCT	3102 Urine strip test A, (incl. Bilirubin & Urobilinogen)		1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 1 lyophilized urine sample with varying concentrations, 15 mL. Examinations: Bilirubin, glucose, ketone bodies, leukocytes, nitrite, pH, protein, blood (erythrocytes), relative density, urobilinogen.													
	Notes: For clinical laboratories and POCT sites.													
	3101 Urine strip test A, 15 mL water for sample dissolution		1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 15 mL, water for dissolution of samples of scheme 3100 and 3102.													
	Notes: Only in connection with scheme 3100 and 3102.													
	3130 Urine strip test B, particle count and estimation of density	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 1 lyophilized urine, 15 mL. Examinations: Particle count: erythrocytes and leukocytes. Estimation of density: creatinine, relative density, osmolality. Strip tests: glucose, ketone bodies, leukocytes, nitrite, pH, protein, blood (erythrocytes).													
	Notes: Also suitable for automatic analyzers (erythrocytes and leukocytes counting). The arbitrary concentrations of the obtained strip test results will only be collected in order to avoid different groupings of positive categories used by different strip tests and user laboratories. Water for dissolution of the lyophilized sample available, see scheme 3131, should be ordered separately.													
	3131 Urine strip test B, 15 mL water for sample dissolution		1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 15 mL water for dissolution of lyophilized samples of scheme 3130.													
	Notes: Only in connection with scheme 3130.													

Clinical chemistry and haematology

Clinical chemistry and haematology » Percentiler and flagger programs

	1	2	3	4	5	6	7	8	9	10	11	12
3500 Flagger program (Noklus)	Twelve rounds per year											
<div><div>1</div><div><p>Specimens: The percentage of patient results outside the reference limits.</p><p>Examinations: ALP, ALT, AST, bilirubin, BUN, calcium, cholesterol, chloride, creatinine, CRP, ferritin, folate, FT4, GGT, glucose, Hb, HbA1c, HDL-cholesterol, IgA, IgG, IgM, IgA, K, LDH, MCV, magnesium, Na, phosphate, PLT, protein, PSA, PTH, RBC, triglycerides, TSH, urea, uric acid, vitamin B12, vitamin D, WBC.</p></div></div>												
<div><div>1</div><div><p>Notes: Each participant will receive log in information giving access to the laboratories results and allowing dynamic on-line monitoring of mid-to long-term stability of performance and flagging rate. Laboratories can choose to participate in The Percentiler program only.</p></div></div>												
	1	2	3	4	5	6	7	8	9	10	11	12
3501 Percentiler program (Noklus)	Twelve rounds per year											
<div><div>1</div><div><p>Specimens: Results from selected patient groups are used to calculate instrument-specific daily medians.</p><p>Examinations: ALP, ALT, AST, bilirubin, BUN, calcium, cholesterol, chloride, creatinine, CRP, ferritin, folate, FT4, GGT, glucose, Hb, HbA1c, HDL-cholesterol, IgA, IgG, IgM, IgA, K, LDH, MCV, magnesium, Na, phosphate, PLT, protein, PSA, PTH, RBC, triglycerides, TSH, urea, uric acid, vitamin B12, vitamin D, WBC.</p></div></div>												
<div><div>1</div><div><p>Notes: Participating laboratories calculate, and report instrument-specific medians based on patient results. The total number of patient results is also reported. Ideally, patient medians are reported daily, but less frequent reporting is also possible. Results are exported to a central database by standardized emails.</p></div></div>												

Haematology

The haematology selection consists of schemes for blood transfusion serology, cell count and morphology as well as coagulation tests. Specialties include the Erythrocyte sedimentation rate for Alifax as well as the White blood cell count and INR schemes for POCT. Units performing blood transfusions find EQA schemes for hepatitis B and C, HIV as well as other infectious diseases under the microbiology portfolio. Schemes related to blood parasites can be found under the parasites chapter.

Haematology » Blood transfusion serological tests

4420	ABO and Rh grouping	1	1	2	3	4	5	6	7	8	9	10	11	12
				•			•			•			•	
			Specimens: 2 whole blood samples, 4 mL. Examinations: ABO & Rh reaction strengths and interpretation. Notes: There is possibility to insert results for full ABO RhD group, confirmation group without using the plasma and a group for a newborn.											
4460	Antibody screening and compatibility testing	1	1	2	3	4	5	6	7	8	9	10	11	12
				•			•			•			•	
			Specimens: 2 whole blood samples (4 mL) and 4 red blood cell suspensions (3 mL). Examinations: Reaction strengths and interpretation.											
4440	Antiglobulin test, direct	1	1	2	3	4	5	6	7	8	9	10	11	12
				•			•			•			•	
			Specimens: 2 red blood cell suspensions, 3 mL. Examinations: Reaction strengths and interpretation.											
4480	Column agglutination methods: grading of reactions and patient cases	3	1	2	3	4	5	6	7	8	9	10	11	12
												•		
			Specimens: 3-5 cases and digital images (DiaMed and Grifols cards). Examinations: Interpretation of the cases and reaction strengths of the digital images. Notes: Post-analytical scheme.											
8852	Titration of erythrocyte antibodies (EQUALIS)	1	1	2	3	4	5	6	7	8	9	10	11	12
			One round per year											
			Specimens: The test material is plasma for titration against included and own test erythrocytes. Examinations: Titration 1. Ref.erythrocyte + ref.method, titration 2. Own testery. + ref. method, titration 3. Ref.erythrocyte + own method, titration 4. Own testery. + own method. Notes: Organized in cooperation with Equalis. Registration before 1 January.											
8851	Quantification of ABO antibodies (EQUALIS)	1	1	2	3	4	5	6	7	8	9	10	11	12
			One round per year											
			Specimens: The test material is plasma for titration against included test erythrocytes. Examinations: Anti-A (titer), Anti-B (titer). Notes: Organized in cooperation with Equalis. Registration before 1 January.											

Haematology » Cell count and cell morphology

4100	Basic blood count, 1-level sample	3	1	2	3	4	5	6	7	8	9	10	11	12
			•	•	•	•	•	•	•	•	•	•	•	•
			Examinations: Hb, HCT, MCH, MCHC, MCV, PLT, RBC, RDW (red cell distribution width), WBC, cumulative patient means of MCH, MCHC, MCV.											
4110	Basic blood count, 2-level samples	3	1	2	3	4	5	6	7	8	9	10	11	12
			•	•	•	•	•	•	•	•	•	•	•	•
			Examinations: Hb, HCT, MCH, MCHC, MCV, PLT, RBC, RDW (red cell distribution width), WBC, cumulative patient means of MCH, MCHC, MCV.											
4180	Leucocyte differential count and evaluation of blood cell morphology, virtual microscopy	3	1	2	3	4	5	6	7	8	9	10	11	12
							•						•	
			Examinations: Leucocyte differential count and evaluation of red blood cells.											

	1	2	3	4	5	6	7	8	9	10	11	12
4200–4201 Leucocyte differential count, 3-part, automated 3			●			●			●			●
Analyzer specific product codes: 4200: ABX, Advia, Cell-Dyn, Coulter, Medonic, Mindray, Nihon Kohden Celltac MEK 4201: Sysmex												
Specimens: 1 blood cell suspension, 2–4 mL. Examinations: Absolute numbers of leucocytes, lymphocytes, mononuclear cells and granulocytes.												

	1	2	3	4	5	6	7	8	9	10	11	12
4230–4240 Leucocyte differential count, 5-part, automated 3			●			●			●			●
Analyzer specific product codes: 4230: Siemens Advia 4231: Cell-Dyn 4232: Coulter 4233: Sysmex XE, XS, XT, XN 4234: ABX Pentra, Yumizen 4236: Mindray 4237: Nihon Kohden Celltac MEK 4239: Mythic 4240: Coulter DxH 560 AL												
Specimens: 1 blood cell suspension, 2–4 mL. Examinations: Leucocytes, basophils, eosinophils, granulocytes, lymphocytes and monocytes.												

	1	2	3	4	5	6	7	8	9	10	11	12
4150–4156 Reticulocyte count, automated 3			●			●			●			●
Analyzer specific product codes: 4150: Siemens Advia, Beckman Coulter 4153: Sysmex 4154: ABX Pentra 4156: Mindray												
Specimens: 2 stabilized red blood cell suspensions, 2–4 mL. Examinations: Reticulocyte count.												

	1	2	3	4	5	6	7	8	9	10	11	12
4140 Reticulocyte count, manual methods 1			●			●			●			●
Specimens: 1 stabilized red blood cell suspension, 2 mL. Examinations: Reticulocyte count.												

	1	2	3	4	5	6	7	8	9	10	11	12
4130 White blood cell count: HemoCue, POCT 3			●						●			
Specimens: 1 blood cell suspension, 2 mL. Examinations: Leucocytes.												
Notes: The scheme is for HemoCue WBC Systems.												

	1	2	3	4	5	6	7	8	9	10	11	12
4190 White blood cell differential count: HemoCue, POCT 3						●						●
Specimens: 1 blood cell suspension, 2 mL. Examinations: Leucocytes, neutrophils, lymphocytes, monocytes, basophils, eosinophils.												
Notes: The scheme is for HemoCue WBC Diff analyzers (5-part).												

Haematology » Coagulation

	1	2	3	4	5	6	7	8	9	10	11	12
4330 Activated partial thromboplastin time, INR and fibrinogen 3		●			●			●			●	
Specimens: 2 lyophilized plasma samples, 0.5–1 mL. Examinations: Coagulation time in seconds, fibrinogen, INR.												

	1	2	3	4	5	6	7	8	9	10	11	12
4387 Anticoagulants: LMW-Heparin/antiFXa 3		●			●			●			●	
Specimens: 2 lyophilized plasma samples, 0.5–1 mL. Examinations: LMW-heparin/antiFXa.												

	1	2	3	4	5	6	7	8	9	10	11	12
4388 D-dimer 3		●			●			●			●	
Specimens: 2 liquid commercial plasma samples, 0.5 mL. Examinations: D-Dimer.												
Notes: For clinical laboratories and POCT sites.												

	1	2	3	4	5	6	7	8	9	10	11	12
4389 D-dimer, extra set of samples		●			●			●			●	
Specimens: 2 liquid commercial plasma samples, 0.5 mL. Examinations: D-Dimer.												
Notes: Only in connection with scheme 4388.												

	1	2	3	4	5	6	7	8	9	10	11	12
4335 INR, CoaguChek, i-STAT and Siemens Xprecia, POCT 3					●						●	
Specimens: Liquid plasma sample. Examinations: Prothrombin time in INR unit.												
Notes: Only for CoaguChek, i-STAT and Siemens Xprecia meters.												

POCT	4337 INR, EuroLyzer, POCT	3	1	2	3	4	5	6	7	8	9	10	11	12
							●						●	
			Specimens: 1 lyophilized plasma sample.											
			Examinations: Prothrombin time in INR unit.											
			Notes: Only for EuroLyzer INR meter.											

POCT	4340 INR, LabPad, POCT	3	1	2	3	4	5	6	7	8	9	10	11	12
							●						●	
			Specimens: 1 dried whole blood sample.											
			Examinations: Prothrombin time in INR unit.											
			Notes: Only for LabPad INR meters.											

POCT	4338 INR, MicroINR, LumiraDX and CoagSense, POCT	3	1	2	3	4	5	6	7	8	9	10	11	12
							●						●	
			Specimens: Lyophilized whole blood sample.											
			Examinations: Prothrombin time in INR unit.											
			Notes: Only for microINR, LumiraDX and CoagSense meters.											

4300 Prothrombin time	3	1	2	3	4	5	6	7	8	9	10	11	12
			●			●			●			●	
		Specimens: 2 lyophilized plasma samples, 0.5–1 mL.											
		Examinations: Prothrombin time, PT%.											

4386 Special coagulation	3	1	2	3	4	5	6	7	8	9	10	11	12
			●			●			●			●	
		Specimens: 2 lyophilized plasma samples, 0.5–1 mL.											
		Examinations: Thrombin time, Antithrombin, Factor VIII, Protein C, Protein S.											

EQA schemes for blood banks

Blood transfusion serology

- 4420 ABO and Rh grouping
- 4460 Antibody screening and compatibility testing
- 4440 Antiglobulin test, direct
- 4480 Column agglutination methods: grading of reactions and patient cases

Bacterial serology

- 5880 Syphilis serology

Bacteriology

- 5100 Blood culture
- 5101 Blood culture, screening

Virology, serological tests

- 5650 Cytomegalovirus, antibodies
- 5092 Hepatitis A, antibodies
- 5093 Hepatitis B, s-antigen antibodies, quantitative
- 5094–5096 Hepatitis B and C, serology
- 5091 HIV, antibodies and antigen detection
- 5089 Human T-cell lymphotropic virus, antibodies
- 5660 Parvovirus B19, antibodies

Virology, molecular tests

- 5679 Hepatitis B virus, nucleic acid detection (DNA)
- 5678 Hepatitis C virus, nucleic acid detection (RNA)
- 5680 HIV-1, nucleic acid detection (RNA)

EQA services for POCT sites

Patient outcome is associated with obtaining a reliable test result regardless of where the testing is performed. To ensure high quality of care and patient safety, it is imperative that point-of-care testing (POCT) is subjected to the same quality requirements as conventional laboratory analyses.

Labquality offers a range of EQA schemes suitable for POCT sites. These services are intended for all testing units including home/community nursing, hospital wards, pediatric clinics, surgical units, occupational healthcare, outpatient clinics and medical centers.

Clinical chemistry

- 2610 Acid-base status and electrolytes
- 3240 Albumin and creatinine in urine
- 2100 Basic chemistry, POCT analyzers
- 2132 C-reactive protein (CRP), POCT
- 3300 Drug of abuse screening in urine
- 2750 Faecal occult blood, qualitative
- 2749 Faecal occult blood, quantitative
- 2570, 2580, 2590 Glucose meters
- 1263 Haemoglobin A1c, liquid samples, POCT
- 2114 Haemoglobin, 1-level, POCT
- 2115 Haemoglobin, 1-level HemoCue 801 and HemoCue 301
- 2112 Haemoglobin, 3-level samples, POCT
- 2526 Ketones (beta-hydroxybutyrate), POCT
- 2690 Natriuretic peptides 1, B-type, NT-ProBNP
- 2691 Natriuretic peptides 2, B-type, BNP
- 3270 Pregnancy test
- 2530 Troponin I and Troponin T, detection, POCT
- 3100 Urine strip test A

Haematology

- 4388 D-Dimer
- 4335 INR, CoaguChek, i-STAT and Siemens Xprecia, POCT
- 4337 INR, EuroLyzer, POCT
- 4340 INR LABPad, POCT
- 4338 INR, MicroINR, LumiraDX and CoagSense, POCT
- 5430 Malaria, antigen and nucleic acid detection
- 4130 White blood cell count: HemoCue, POCT
- 4190 White blood cell differential count: HemoCue, POCT

Microbiology

- 5635 Dengue virus, antibodies and antigen detection
- 5640 EBV mononucleosis, POCT
- 5860 *Helicobacter pylori*, antibodies
- 5596 *Helicobacter pylori*, antigen detection in faeces
- 5090 HIV, antibodies and antigen detection, POCT
- 5671 Influenza virus A+B, antigen detection
- 5597 Legionella, antigen detection in urine
- 5430 Malaria, antigen and nucleic acid detection
- 5980 *Mycoplasma pneumoniae*, antibodies
- 5560 Puumala virus, antibodies
- 5673 Respiratory adenovirus, antigen detection
- 5098 Rotavirus and adenovirus, antigen detection
- 5672 RS virus, antigen detection
- 5677 SARS CoV-2, antibodies
- 5681 SARS-CoV-2 antigen detection
- 5676 SARS-CoV-2 nucleic acid detection
- 5595 *Streptococcus pyogenes*, group A, antigen detection in pharyngeal sample
- 5599 *Streptococcus agalactiae* (GBS), nucleic acid detection
- 5598 *Streptococcus pneumoniae*, antigen detection in urine
- 5099 Tick-borne encephalitis virus, antibodies
- 5473 *Trichomonas vaginalis*, detection

Preanalytics

- 7801 Preanalytics, urine and blood sample collection
- 7804 Preanalytics, POCT in chemistry

Immunology

This program includes schemes for immunodiagnostic tests such as those for coeliac disease, rheumatoid factor and thyroid gland autoantibodies. All of the schemes involve analysis of liquid human serum or plasma samples. For allergy diagnostics, review the allergology program in the clinical chemistry portfolio.

EQA ³	5935 ANCA and GbmAb	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human serum or plasma samples, 0.5 mL. Examinations: Anti-neutrophil cytoplasmic Ab, Myeloperoxidase Ab, Proteinase-3 Ab and Glomerular basement membrane Ab.			•						•				
			Pre- and/or post-analytical cases in part of the rounds. Notes: Quantitative results are also processed (Pr3Ab, MPOAb, GbmAb).											
EQA ³	5900 Antinuclear antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 3 liquid human serum or plasma samples, 0.6 mL. Examinations: ANA, ENAAb, RNPAAb, SmAb (SmDAAb and/or SmBAAb), SSAAb, SSBAb, Scl70Ab, CENP-B, CENP-A, Jo1Ab, dsDNA, HistAb, RibP Ab, RNApol III Ab. Pre- and/or post-analytical cases in part of the rounds.				•							•		
			Notes: Extractable antinuclear antigens and double-stranded deoxyribonucleic acid are included.											
	5938 Autoimmune diagnostics, IFA interpretation	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 3–5 cases (digital images).					•								
			Examinations: Interpretation (ANA, ANCA and EMA images).											
	5930 Autoimmune liver disease and gastric parietal cell antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL.					•							•	
			Examinations: Smooth muscle antibodies, Mitochondrial antibodies, Gastric parietal cell antibodies.											
EQA ³	5940 Coeliac disease, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human serum or plasma samples, 0.7 mL. Examinations: Endomysium antibodies, tissue transglutaminase antibodies, deamidated gliadin peptide antibodies, interpretation of the Total IgA concentration of the sample. Pre- and/or post-analytical cases in part of the rounds.			•			•					•		
			Notes: Quantitative results are also processed (tTGAbA, tTGAbG, DGPAbA, DGPAbG). Scheme is not suitable for POCT.											
EQA ³	5250 Interferon Gamma Release Assay (IGRA) for <i>Mycobacterium tuberculosis</i>	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: One sample set (contains 3 lyophilized samples, 1 liquid blank/ NIL sample and water to dissolve the samples) and a preanalytical case description including questions.			•			•			•			•	
			Examinations: Quantitative result and qualitative interpretation of TbINFg. The scheme is not suitable for the TB T-Spot test.											
	5937 Phospholipid antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human serum or plasma samples, 0.5 mL. Examinations: Phospholipid antibodies, Cardiolipin antibodies (IgG and IgM),					•								
			beta-2-glycoprotein antibodies (IgG and IgM). Notes: Quantitative results are also processed.											
	5820 Rheumatoid factor and citrullic peptide antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human-derived samples, 0.7 mL.		•			•			•			•		
			Examinations: Qualitative and quantitative RF, CCPAb.											
EQA ³	5920 Thyroid gland antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL. Examinations: Thyroglobulin antibodies and thyroid peroxidase antibodies.			•			•					•		
			Pre- and/or post-analytical cases in part of the rounds. Notes: Quantitative results are also processed.											
	5913 TSH receptor antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL. Examinations: Thyroid stimulating hormone receptor antibodies.			•							•			
			Notes: Quantitative results are also processed.											

Microbiology

The microbiological EQA programs are suitable for clinical laboratories and POCT sites performing testing in the areas of bacterial serology, bacteriology, mycology, parasitology and virology. While the selection includes schemes for antigen detection, antibody detection, culture, microscopy, and PCR tests, solutions for versatile needs are available. Authentic single donor samples are included in multiple schemes.

Microbiology » Bacterial Serology

5840	Antistreptolysin	3	1	2	3	4	5	6	7	8	9	10	11	12
			Specimens: 2 liquid human serum or plasma samples, 0.4 mL. Authentic, commutable, single donor samples.											
			Examinations: Qualitative and quantitative ASO.											
5950	Bordetella pertussis, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
			Specimens: 2 liquid human serum samples, 0.3 mL.											
			Examinations: B. pertussis IgA, IgG & IgM antibodies, Pertussis toxin IgA, IgG & IgM, post-analytical clinical interpretation.											
5960	Borrelia burgdorferi, antibodies, European origin	3	1	2	3	4	5	6	7	8	9	10	11	12
			Specimens: 2 liquid human serum or plasma samples, 0.5 mL. Authentic, commutable, single donor samples.											
			Examinations: B. burgdorferi IgG, IgM and total antibodies, post-analytical clinical interpretation.											
5965	CXCL 13 Chemokine	3	1	2	3	4	5	6	7	8	9	10	11	12
			Specimens: 2 liquid samples.											
			Examinations: Chemokine CXCL13 detection.											
5620	Chlamydia pneumoniae, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
			Specimens: 3 liquid serum or plasma samples, 0.4 mL.											
			Examinations: C. pneumoniae IgA, IgG, IgM antibodies, post-analytical clinical interpretation.											
5851	Francisella tularensis, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
			Specimens: 3 liquid human serum or plasma samples, 0.5 mL.											
			Examinations: Francisella tularensis IgG, IgM and total antibodies.											
5860	Helicobacter pylori, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
			Specimens: 2 liquid human serum or plasma samples, 0.4 mL.											
			Examinations: H. pylori IgA, IgG and total antibodies, quantitative and qualitative tests, post-analytical clinical interpretation.											
			Notes: For clinical laboratories and POCT sites.											
5980	Mycoplasma pneumoniae, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
			Specimens: 2 liquid human serum or plasma samples, 0.3 mL. Authentic, commutable, single donor samples.											
			Examinations: M. pneumoniae IgG, IgM and total antibodies, post-analytical clinical interpretation.											
			Notes: For clinical laboratories and POCT sites.											
5880	Syphilis serology	3	1	2	3	4	5	6	7	8	9	10	11	12
			Specimens: 2 liquid human serum samples, 0.6 mL. Authentic, commutable, single donor samples.											
			Examinations: Cardiolipin, Treponema pallidum antibodies, post-analytical clinical interpretation.											

5050 Bacteriological staining, direct	3	<div>1 2 3 4 5 6 7 8 9 10 11 12</div> <div>• •</div>
Specimens: 3 cases, 3–9 digital images.		Examinations: Interpretation of digital images taken from direct bacteriological Gram staining of clinical samples.
5100 Blood culture (incl. sepsis multiplex methods)	1	<div>1 2 3 4 5 6 7 8 9 10 11 12</div> <div>• • • • •</div>
Specimens: 3 lyophilized samples. Brief case histories also given. Fresh blood is needed in the specimen preparation. The samples intended for susceptibility testing may include both international quality control strains and clinical strains.		Examinations: Culture, identification, antimicrobial susceptibility testing. Direct nucleic acid detection from positive blood culture bottles by multiplex methods is included in the scheme. Notes: Fresh blood is needed but not included in the shipment.
5101 Blood culture, screening (incl. sepsis multiplex methods)	1	<div>1 2 3 4 5 6 7 8 9 10 11 12</div> <div>• • • • •</div>
Specimens: 3 lyophilized samples. Brief case histories also given. Fresh blood is needed in the specimen preparation. Examinations: Culture, preliminary identification using Gram staining and/or direct nucleic acid detection from positive blood culture bottles by multiplex		methods. The scheme is also suitable for stem cell banks screening only for possible growth. Notes: Fresh blood is needed but not included in the shipment.
5150 Cerebrospinal fluid, bacterial culture	1	<div>1 2 3 4 5 6 7 8 9 10 11 12</div> <div>• • • • •</div>
Specimens: 2 lyophilized samples. Brief case histories are also given. Examinations: Culture and identification. The scheme is also suitable for laboratories performing screening and reporting merely a preliminary identification.		Notes: See also scheme 5303 Meningitis-encephalitis multiplex, nucleic acid detection.
5612 <i>Chlamydia trachomatis</i> and <i>Neisseria gonorrhoeae</i> , nucleic acid detection	3	<div>1 2 3 4 5 6 7 8 9 10 11 12</div> <div>• • • • •</div>
Specimens: 3 simulated swab/urine samples, 2 mL. Examinations: Detection of <i>C. trachomatis</i> and <i>N. gonorrhoeae</i> nucleic acid.		Notes: See also scheme 5302 Sexually transmitted diseases multiplex, nucleic acid detection. The samples contain hDNA.
5200 <i>Clostridioides difficile</i> , culture and toxin detection	1	<div>1 2 3 4 5 6 7 8 9 10 11 12</div> <div>• • • • •</div>
Specimens: 2 lyophilized mixtures of bacteria.		Examinations: This scheme includes <i>C. difficile</i> culture, antigen detection (GDH), toxin detection and direct nucleic acid detection. Hypervirulent <i>C. difficile</i> strains also included.
5202 <i>Clostridioides difficile</i> , extra set of samples		<div>1 2 3 4 5 6 7 8 9 10 11 12</div> <div>• • • • •</div>
Specimens: 2 lyophilized mixtures of bacteria.		Notes: Only in connection with scheme 5200.
5201 <i>Clostridioides difficile</i> , nucleic acid detection	1	<div>1 2 3 4 5 6 7 8 9 10 11 12</div> <div>• • • • •</div>
Specimens: 2 lyophilized mixtures of bacteria.		Examinations: <i>C. difficile</i> direct nucleic acid detection. Hypervirulent <i>C. difficile</i> strains also included. Notes: 5200 includes also this examination
5191 Faecal bacterial pathogens multiplex, nucleic acid detection	1	<div>1 2 3 4 5 6 7 8 9 10 11 12</div> <div>• • • • •</div>
Specimens: 3 samples. Either lyophilized mixtures of bacteria and/or simulated samples, 1 mL. Examinations: Direct nucleic acid detection. Pathogens included are <i>Aeromonas</i> , <i>Campylobacter</i> , <i>E. coli</i> EHEC (stx1/stx2), <i>E. coli</i> EAEC, <i>E. coli</i>		EIEC, <i>E. coli</i> EPEC, <i>E. coli</i> ETEC, <i>Plesiomonas</i> , <i>Salmonella</i> , <i>Shigella</i> and <i>Yersinia</i> . Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.

5190 Faecal culture	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized mixtures of bacteria. Examinations: Culture, identification and antimicrobial susceptibility (rounds 2 and 4). In addition to culture, samples are also suitable for direct nucleic acid detection. Pathogens included are <i>Aeromonas</i> , <i>Campylobacter</i> , <i>Plesiomonas</i> , <i>Salmonella</i> , <i>Shigella</i> and <i>Yersinia</i> .													
5080 General Bacteriology 1 (aerobes and anaerobes)	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 4 lyophilized mixtures of microbes: both pathogens and normal flora. The samples intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains. Brief case histories are also given. Pre- and/or post-analytical cases in part of the rounds. Examinations: Isolation of pathogens and antimicrobial susceptibility testing, pre- and/or post-analytical cases. Notes: 5080 includes 5081, General Bacteriology 2.													
5081 General Bacteriology 2 (aerobes)	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized mixtures of microbes: both pathogens and normal flora. The specimens intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains. Brief case histories are also given. Pre- and/or post-analytical cases in part of the rounds. Examinations: Isolation of pathogens and antimicrobial susceptibility testing, pre- and/or post-analytical cases. Notes: 5080 General Bacteriology 1 includes 5081.													
5041 Gram stain, blood culture	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 air-dried, unfixed microbe suspensions on slides. Brief case histories also given. Examinations: Staining and microscopy.													
5040 Gram stain, colonies	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 air-dried, unfixed microbe suspensions on a slide. Examinations: Staining and microscopy.													
5596 <i>Helicobacter pylori</i> , antigen detection in faeces	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 samples: lyophilized faecal. Examinations: Antigen detection. Notes: For clinical laboratories and POCT sites.													
5253 <i>Helicobacter pylori</i> , nucleic acid detection	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 simulated swab samples or lyophilized faecal samples. Examinations: <i>H. pylori</i> nucleic acid detection. Clarithromycin susceptibility (occasionally). Notes: The samples are suitable for all <i>H. pylori</i> NAT methods, clarithromycin resistant samples can be included. The samples contain hDNA.													
5597 Legionella, antigen detection in urine	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 simulated urine samples. Examinations: Legionella antigen detection.													
5230 <i>Mycobacterium tuberculosis</i> , drug resistance, nucleic acid detection	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 simulated samples, 1 mL. Examinations: <i>Mycobacterium tuberculosis</i> nucleic acid detection, rifampicin susceptibility and isoniazid susceptibility.													
5231 <i>Mycobacterium tuberculosis</i> , drug resistance, nucleic acid detection, extra set of samples		1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 simulated samples, 1 mL. Notes: Only in connection with scheme 5230.													
5220 Mycobacterial culture and stain	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples and 2 fixed smears on slides. Examinations: Detection of <i>Mycobacterium tuberculosis</i> , <i>Mycobacterium tuberculosis</i> complex and atypical mycobacteria: culture, direct nucleic acid detection, acid-fast staining and microscopy. Notes: See also product 5250 IGRA for <i>M. tuberculosis</i> .													

	1	2	3	4	5	6	7	8	9	10	11	12
5221 Mycobacterial nucleic acid detection												
<div><div>1</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> <div>Specimens: 2 lyophilized samples. Examinations: Direct nucleic acid detection.</div> <div>Notes: 5220 includes also this examination. For additional set of samples, order scheme 5222.</div>												
	1	2	3	4	5	6	7	8	9	10	11	12
5222 Mycobacteria, extra set of samples												
<div><div>1</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> <div>Specimens: 2 lyophilized samples.</div> <div>Notes: Only in connection with scheme 5220 or 5221.</div>												
	1	2	3	4	5	6	7	8	9	10	11	12
5240 Mycobacterial stain												
<div><div>1</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> <div>Specimens: 2 fixed smears on slides.</div> <div>Examinations: Acid-fast staining and microscopy.</div>												
NEW	1	2	3	4	5	6	7	8	9	10	11	12
5254 <i>Mycoplasma genitalium</i> , drug resistance, nucleic acid detection												
<div><div>3</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> <div>Specimens: 3 simulated swab samples. Examinations: <i>M. genitalium</i> nucleic acid detection, macrolide (azithromycin) susceptibility.</div> <div>Notes: The samples are suitable for all <i>M. genitalium</i> NAT methods and primarily intended for methods detecting point mutations causing macrolide resistance. The samples contain hDNA.</div>												
	1	2	3	4	5	6	7	8	9	10	11	12
5120 <i>Neisseria gonorrhoeae</i> (Gc), culture and susceptibility testing												
<div><div>1</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> <div>Specimens: 2 lyophilized mixtures of microbes. The samples intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains.</div> <div>Examinations: Culture, identification and antimicrobial susceptibility testing. Also suitable for laboratories performing preliminary screening.</div>												
	1	2	3	4	5	6	7	8	9	10	11	12
5180 Salmonella culture												
<div><div>1</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> <div>Specimens: 2 lyophilized mixtures of bacteria. Examinations: Culture.</div> <div>Notes: 5190 also includes 5180.</div>												
POCT	1	2	3	4	5	6	7	8	9	10	11	12
5599 <i>Streptococcus agalactiae</i> (GBS), nucleic acid detection												
<div><div>3</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> <div>Specimens: 2 swab samples. Samples also include normal flora. Examinations: Direct nucleic acid detection.</div> <div>Notes: The samples contain hDNA. See also product 5594 for <i>S. agalactiae</i> (GBS) culture.</div>												
	1	2	3	4	5	6	7	8	9	10	11	12
5594 <i>Streptococcus agalactiae</i> (GBS), culture												
<div><div>1</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> <div>Specimens: 2 lyophilized samples. Samples include pathogens and/or normal flora.</div> <div>Examinations: Culture. Notes: See also product 5599 for direct nucleic acid detection.</div>												
POCT	1	2	3	4	5	6	7	8	9	10	11	12
5598 <i>Streptococcus pneumoniae</i> , antigen detection in urine												
<div><div>3</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> <div>Specimens: 3 simulated urine specimens.</div> <div>Examinations: <i>S. pneumoniae</i> antigen detection.</div>												
POCT	1	2	3	4	5	6	7	8	9	10	11	12
5595 <i>Streptococcus pyogenes</i> (Group A), antigen detection in pharyngeal sample												
<div><div>3</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> <div>Specimens: 3 simulated pharyngeal samples. Examinations: Antigen detection.</div> <div>Notes: For clinical laboratories and POCT sites.</div>												
	1	2	3	4	5	6	7	8	9	10	11	12
5593 <i>Streptococcus pyogenes</i> (Group A), nucleic acid detection in pharyngeal sample												
<div><div>3</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> <div>Specimens: 3 simulated pharyngeal samples.</div> <div>Examinations: Nucleic acid detection.</div>												

	1	2	3	4	5	6	7	8	9	10	11	12
5073 Surveillance for multidrug resistant bacteria, gramnegative rods	①		●			●			●		●	
Specimens: 1 lyophilized mixture of microbes; including pathogens and/or normal flora. Examinations: The scheme is intended for laboratories performing screening of multidrug resistant gramnegative rods (e.g. CPE, ESBL, MDR <i>Acinetobacter</i> and <i>P. aeruginosa</i>) by culture and/or direct nucleic acid detection method.												

	1	2	3	4	5	6	7	8	9	10	11	12
5071 Surveillance for multidrug resistant bacteria, MRSA	①		●			●			●		●	
Specimens: 1 lyophilized mixture of microbes; including pathogens and/or normal flora. Examinations: The scheme is intended for laboratories performing screening of MRSA (methicillin resistant <i>Staphylococcus aureus</i>) by culture and/or direct nucleic acid detection method.												

	1	2	3	4	5	6	7	8	9	10	11	12
5072 Surveillance for multidrug resistant bacteria, VRE	①		●			●			●		●	
Specimens: 1 lyophilized mixture of microbes; including pathogens and/or normal flora. Examinations: The scheme is intended for laboratories performing screening of VRE (vancomycin-resistant enterococci) by culture and/or direct nucleic acid detection method.												

	1	2	3	4	5	6	7	8	9	10	11	12
5140 Throat streptococcal culture	①		●		●			●			●	
Specimens: 3 lyophilized mixtures of bacteria. Examinations: Culture and identification of group A, C and G streptococci.												

	1	2	3	4	5	6	7	8	9	10	11	12
5060 Urine culture, quantitative screening	①		●			●			●			●
Specimens: 2 lyophilized samples and dilutor. Brief case histories also given. Pre- and/or post-analytical cases in part of the rounds. Examinations: Culture and quantitation, pre-and/or post-analytical indicators. Notes: Scheme 3170 available for urine bacterial screening with automated analyzers.												

EQA³

	1	2	3	4	5	6	7	8	9	10	11	12
5065 Urine culture, quantitative screening, identification and susceptibility	①		●			●			●			●
Specimens: 2 lyophilized samples and dilutor. Brief case histories also given. The samples intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains. Pre- and/or post-analytical cases in part of the rounds. Examinations: Culture, quantitation, identification and antimicrobial susceptibility testing, pre-and/or post-analytical indicators. Notes: Scheme 3170 available for urine bacterial screening with automated analyzers.												

EQA³

Microbiology » Mycology

	1	2	3	4	5	6	7	8	9	10	11	12
5261 Fungal infections, nucleic acid detection	①			●					●			
Specimens: 3-4 simulated samples. The samples may include yeasts, dermatophytes and moulds. Examinations: Nucleic acid detection according to laboratory's own test selection. Notes: Test selection of the participating lab is taken into consideration in result processing. The samples contain hDNA.												

	1	2	3	4	5	6	7	8	9	10	11	12
5260 Fungal culture	①		●		●				●		●	
Specimens: 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts. Examinations: Culture and identification. Antimicrobial susceptibility testing of yeast strains.												

Microbiology » Parasitology

	1	2	3	4	5	6	7	8	9	10	11	12
5472 Faecal parasites multiplex, nucleic acid detection	①		●		●			●			●	
Specimens: 3 lyophilized samples. Examinations: Nucleic acid detection of <i>Cryptosporidium</i> , <i>Dientamoeba fragilis</i> , <i>Entamoeba histolytica</i> and <i>Giardia lamblia</i> .												

	1	2	3	4	5	6	7	8	9	10	11	12
5430 Malaria, antigen and nucleic acid detection	③		●		●			●			●	
Specimens: 3 whole blood samples. Examinations: Antigen and nucleic acid detection. Target antigens: HRP2 and/or pLDH and/or aldolase. Notes: For clinical laboratories and POCT sites.												

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
5462 Malaria screening, Giemsa stain	3											
Specimens: 2 methanol fixed or Giemsa stained smears. Brief case histories also given. Examinations: Preliminary screening of malaria plasmodia.												

	1	2	3	4	5	6	7	8	9	10	11	12
5463 Malaria screening, MGG stain	3											
Specimens: 2 methanol fixed or May-Grünwald-Giemsa stained smears. Brief case histories are also given. Examinations: Preliminary screening of malaria plasmodia.												

	1	2	3	4	5	6	7	8	9	10	11	12
5460 Parasites in blood, Giemsa stain	3											
Specimens: 2 methanol fixed or Giemsa stained smears. Brief case histories also given. Examinations: Screening and identification of malaria plasmodia and other blood parasites.												

	1	2	3	4	5	6	7	8	9	10	11	12
5470 Parasites in blood, Giemsa stain, virtual microscopy	5											
Specimens: 2 virtual whole slide images of Giemsa stained smears prepared by using a scanner microscope. Brief case histories also given. Examinations: Screening and identification of malaria plasmodia and other blood parasites.												

	1	2	3	4	5	6	7	8	9	10	11	12
5461 Parasites in blood, MGG stain	3											
Specimens: 2 methanol fixed or May-Grünwald-Giemsa stained smears. Brief case histories are also given. Examinations: Screening and identification of malaria plasmodia and other blood parasites.												

	1	2	3	4	5	6	7	8	9	10	11	12
5471 Parasites in blood, MGG stain, virtual microscopy	5											
Specimens: 2 virtual whole slide images of MGG stained smears prepared by using a scanner microscope. Brief case histories also given. Examinations: Screening and identification of malaria plasmodia and other blood parasites.												

	1	2	3	4	5	6	7	8	9	10	11	12
5440 Parasites in faeces	1											
Specimens: 3 stool samples in formalin. Brief case histories also given. Examinations: Screening and identification of intestinal parasites (ova and parasites).												

	1	2	3	4	5	6	7	8	9	10	11	12
5450 Parasites in faeces, virtual microscopy	5											
Specimens: Virtual whole slide images of stool samples in formalin prepared by using a scanner microscope. Brief case histories also given. Examinations: Screening and identification of intestinal parasites (ova and parasites).												

EQA ³	5420 Toxoplasma, antibodies	3		●				●			●			●	
	Specimens: 3 liquid human plasma samples, 0.7 mL each. Brief case histories also given. Authentic commutable samples: Each sample batch originates from a single human donor.														
	Examinations: Toxoplasma IgG, IgM and total antibodies, IgG avidity, post-analytical clinical interpretation.														

POCT		1	2	3	4	5	6	7	8	9	10	11	12
	5473 <i>Trichomonas vaginalis</i> , detection	3		●		●				●		●	
	Specimens: 3 simulated samples. Examinations: Detection of <i>Trichomonas vaginalis</i> antigen and nucleic acid (NAT). Notes: The samples contain hDNA.												

Microbiology » Virology

	1	2	3	4	5	6	7	8	9	10	11	12
5651 CMV and EBV, nucleic acid detection, quantitative	3											
Specimens: 5 samples simulating plasma, 1.5 mL Examinations: CMV and EBV NAT (quantitative). Notes: Quantitative result processing.												

5650	Cytomegalovirus, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	EQA ³		
				●			●				●			●			
			Specimens: 3 liquid human plasma samples, 0.7 mL. Authentic commutable samples: each batch originates from a single human donor.												Examinations: Cytomegalovirus IgG, IgM and total antibodies, IgG avidity and post-analytical clinical interpretation.		
5635	Dengue virus, antibodies and antigen detection	3	1	2	3	4	5	6	7	8	9	10	11	12	POCT EQA ³		
					●			●				●		●			
			Specimens: 3 human serum or plasma samples, 0.5 mL. Authentic, commutable samples from a single human donor or occasionally simulated samples.												Examinations: Dengue virus IgG and IgM antibodies, Dengue virus antigen (NS1) and post-analytical clinical interpretation.		
5640	EBV mononucleosis, POCT	3	1	2	3	4	5	6	7	8	9	10	11	12	POCT		
				●			●					●				●	
			Specimens: 3 liquid human plasma samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.												Examinations: MonAb. Notes: For clinical laboratories and POCT sites.		
5641	EBV mononucleosis, specific antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	EQA ³		
				●			●					●				●	
			Specimens: 3 liquid human plasma samples, 1.4 mL. Authentic commutable samples: each batch originates from a single human donor.												Examinations: EBNA AbG, EBV VCA AbG, EBV VCA AbM, IgG Avidity and post-analytical clinical interpretation.		
5092	Hepatitis A, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	EQA ³		
				●			●				●			●			
			Specimens: 3 liquid human plasma samples, 0.6 mL. Authentic commutable samples: each batch originates from a single human donor.												Examinations: HAVAb, HAVAbM, HAVAbG and post-analytical clinical interpretation.		
5094–5096	Hepatitis B and C, serology, specimen volume 0.6 mL / 1.2 mL / 2.0 mL	3	1	2	3	4	5	6	7	8	9	10	11	12	EQA ³		
				●			●				●			●			
			Specimens: 3 liquid human plasma samples, 0.6 / 1.2 or 2.0 mL. Authentic commutable samples: each batch originates from a single human donor.												Volume specific product codes: 5094: for 0.6 mL human plasma specimens 5095: for 1.2 mL human plasma specimens 5096: for 2.0 mL human plasma specimens		
			Examinations: HBcAb, HBcAbM, HBeAb, HBeAg, HBsAb (qual), HBsAg, HCVAb, HCVAbCt and post-analytical clinical interpretation.														
5093	Hepatitis B, s-antigen antibodies, quantitative	3	1	2	3	4	5	6	7	8	9	10	11	12			
			●			●			●				●				
			Specimens: 2 liquid human plasma or serum samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.												Examinations: HBsAb (anti-HBs), quantitative.		
5679	Hepatitis B virus, nucleic acid detection (DNA)	3	1	2	3	4	5	6	7	8	9	10	11	12			
					●		●					●		●			
			Specimens: 3 lyophilized or liquid plasma samples, 1.2 mL.												Examinations: HBV DNA, quantitative and/or qualitative nucleic acid detection.		
5678	Hepatitis C virus, nucleic acid detection (RNA)	3	1	2	3	4	5	6	7	8	9	10	11	12			
					●		●					●		●			
			Specimens: 3 lyophilized or liquid plasma samples, 1.2 mL.												Examinations: HCV RNA, quantitative and/or qualitative nucleic acid detection.		
5682	Hepatitis E, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	EQA ³		
							●							●			
			Specimens: 3 liquid human plasma samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.												Examinations: Hepatitis E virus IgG and IgM antibodies, post-analytical clinical interpretation.		
5555	Herpes simplex 1 and 2, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12			
				●			●				●			●			
			Specimens: 3 liquid human plasma or serum samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor. Occasionally simulated samples.												Examinations: HSV IgG (qualitative/quantitative), HSV IgM, HSV-1 IgG, HSV-2 IgG.		

		1	2	3	4	5	6	7	8	9	10	11	12
	5680	HIV-1, nucleic acid detection (RNA)										3	
	Specimens: 3 lyophilized or liquid plasma samples, 1.2 mL.										Examinations: HIV-1 RNA, quantitative and/or qualitative nucleic acid detection.		
		1	2	3	4	5	6	7	8	9	10	11	12
EQA ³	5091	HIV, antibodies and antigen detection										3	
	Specimens: 3 liquid human plasma 0.7 mL.										Examinations: HIVAgAb (combo), HIVAb, HIVAg, HIVAbCt: primary and confirmatory tests, post-analytical clinical interpretation. Positive specimens may include HIV-1 or HIV-2.		
		1	2	3	4	5	6	7	8	9	10	11	12
NEW	5088	HIV, antibodies and antigen detection, extra set of samples											
	Specimens: 3 liquid human plasma 0.7 mL.										Notes: Only in connection with scheme 5091.		
		1	2	3	4	5	6	7	8	9	10	11	12
POCT	5090	HIV, antibodies and antigen detection, POCT										3	
	Specimens: 3 liquid human plasma 0.5 mL. Examinations: HIVAb and HIVAgAb primary tests (POCT).										Notes: This scheme is only for POC tests. Scheme 5091 is for clinical laboratories.		
		1	2	3	4	5	6	7	8	9	10	11	12
	5556	HSV1&2/VZV/ <i>Treponema pallidum</i> , nucleic acid detection										3	
	Specimens: 3 samples simulating swab samples taken from lesions. Examinations: Nucleic acid detection of HSV1, HSV2, VZV, <i>Treponema pallidum</i> .										Notes: The samples contain hDNA.		
		1	2	3	4	5	6	7	8	9	10	11	12
	5086	Human papillomavirus, nucleic acid detection										3	
	Specimens: 2 simulated samples, 1 mL. Examinations: High-risk human papillomavirus NAT (hrHPVNAT). HPV genotypes included are: 16, 18, 31, 33, 39, 45, 51, 52, 66, 67.										Notes: Suitable for nucleic acid methods used in cervical cancer screening. The samples contain hDNA.		
		1	2	3	4	5	6	7	8	9	10	11	12
EQA ³	5089	Human T-cell lymphotropic virus, antibodies										3	
	Specimens: 3 liquid human plasma samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.										Examinations: HTLVAb: primary and confirmatory tests, post-analytical clinical interpretation. Positive samples may include HTLV-1 or HTLV-2.		
		1	2	3	4	5	6	7	8	9	10	11	12
	5670	Influenza virus A+B and RS virus, nucleic acid detection										3	
	Specimens: 3 simulated liquid samples, 1 mL. Examinations: InfANAT, InfBNAT, RSVNAT.										Notes: See also scheme 5300 Respiratory infections multiplex, nucleic acid detection or 5562 Multiple respiratory virus, nucleic acid detection. The samples contain hDNA.		
		1	2	3	4	5	6	7	8	9	10	11	12
POCT	5671	Influenza virus A+B, antigen detection										3	
	Specimens: 3 liquid and/or swab samples. Examinations: InfAaAg, InfBAg.										Notes: For clinical laboratories and POCT sites. The samples are not suitable for IFA or NAT methods, please see scheme 5670 or 5562.		
		1	2	3	4	5	6	7	8	9	10	11	12
EQA ³	5668	Measles virus, antibodies										3	
	Specimens: 3 liquid human plasma samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.										Examinations: Measles virus IgG and IgM antibodies and post-analytical clinical interpretation.		
		1	2	3	4	5	6	7	8	9	10	11	12
	5562	Multiple respiratory virus, nucleic acid detection										3	
	Specimens: 3 simulated swab samples. Examinations: Influenza A/B virus NAT, RSV NAT and SARS-CoV-2 NAT.										Notes: The scheme is not suitable for TMA methods (e.g. Hologic Aptima SARS-CoV-2 Assay). The samples contain hDNA.		
		1	2	3	4	5	6	7	8	9	10	11	12
EQA ³	5669	Mumps virus, antibodies										3	
	Specimens: 3 liquid human plasma samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.										Examinations: Mumps virus IgG and IgM antibodies and post-analytical clinical interpretation.		
		1	2	3	4	5	6	7	8	9	10	11	12

5683 Mpox (Monkeypox virus), nucleic acid detection	3	1	2	3	4	5	6	7	8	9	10	11	12	NEW
Specimens: 2 swab samples simulating patient samples from lesions. Examinations: Mpox NAT.														
Notes: The samples contain hDNA.														
5675 Norovirus, nucleic acid detection	3	1	2	3	4	5	6	7	8	9	10	11	12	
Specimens: 3 simulated samples, 1 mL. Examinations: Norovirus NAT, genogroups GI and GII.														
5660 Parvovirus B19, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	EQAS
Specimens: 3 liquid human plasma or serum samples, 0.4 mL. Authentic commutable samples: each batch originates from a single human donor.														
Examinations: Parvovirus IgG, IgM, IgG avidity and post-analytical clinical interpretation.														
5560 Puumala virus, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	POCT EQAS
Specimens: 3 liquid human plasma or serum samples, 0.3 mL. Brief case histories are also provided.														
Examinations: Puumala virus IgG, IgM, POC tests and specific antibodies, IgG avidity and post-analytical clinical interpretation.														
Notes: For clinical laboratories and POCT sites.														
5673 Respiratory adenovirus, antigen detection	3	1	2	3	4	5	6	7	8	9	10	11	12	POCT
Specimens: 3 simulated samples, 1 mL. Examinations: Adenovirus Ag.														
5098 Rotavirus and adenovirus, antigen detection	3	1	2	3	4	5	6	7	8	9	10	11	12	POCT
Specimens: 3 artificial faecal samples. Examinations: Rotavirus and adenovirus antigen detection.														
5672 RS virus, antigen detection	3	1	2	3	4	5	6	7	8	9	10	11	12	POCT
Specimens: 3 liquid and/or swab samples. Examinations: RSVAg.														
Notes: For clinical laboratories and POCT sites. The samples are not suitable for IFA or NAT methods, please see scheme 5670 or 5562.														
5667 Rubella virus, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	EQAS
Specimens: 3 liquid human plasma samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.														
Examinations: Rubella virus IgG and IgM antibodies, IgG avidity and post-analytical clinical interpretation.														
5677 SARS-CoV-2, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	POCT
Specimens: 3 liquid human plasma or serum samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.														
Examinations: SARS-CoV-2 Ab, SARS-CoV-2 IgG, SARS-CoV-2 IgM, SARS-CoV-2 IgA.														
Notes: For clinical laboratories and POCT sites.														
5681 SARS-CoV-2, antigen detection	3	1	2	3	4	5	6	7	8	9	10	11	12	POCT
Specimens: 3 simulated samples. Examinations: SARS-CoV-2 Ag.														
Notes: For clinical laboratories and POCT sites.														
5676 SARS-CoV-2, nucleic acid detection	3	1	2	3	4	5	6	7	8	9	10	11	12	POCT
Specimens: 3 simulated whole genome cDNA samples. Examinations: SARS-CoV-2 NAT.														
Notes: Including variants. Scheme is not suitable for TMA methods (e.g. Hologic Aptima SARS-CoV-2 Assay). The samples contain hDNA.														

	1	2	3	4	5	6	7	8	9	10	11	12
POCT			•			•			•			•
5099 Tick-borne encephalitis virus, antibodies												
Specimens: 3 liquid human plasma or serum samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.												
Examinations: TBE IgG, IgM, total antibodies and post-analytical clinical interpretation.												
Notes: For clinical laboratories and POCT sites.												
EQA³												
5665 Varicella zoster virus, antibodies		•			•			•			•	
Specimens: 3 liquid human plasma or serum samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.												
Examinations: Varicella zoster IgG, IgM, total antibodies and post-analytical clinical interpretation.												
EQA³												
5636 Zika virus, antibodies					•						•	
Specimens: 3 liquid human plasma or serum samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.												
Examinations: Zika virus IgG, Zika virus IgM, clinical interpretation.												

EQA schemes including Antimicrobial Susceptibility Testing

Bacteriology and mycology

- 5100 Blood culture
- 5190 Faecal culture (rounds 2 and 4)
- 5260 Fungal culture
- 5080 General Bacteriology 1
- 5081 General Bacteriology 2
- 5253 *Helicobacter pylori*, nucleic acid detection
- 5230 *Mycobacterium tuberculosis*, drug resistance, nucleic acid detection

- 5254 *Mycoplasma genitalium*, drug resistance, nucleic acid detection
- 5120 *Neisseria gonorrhoeae* (Gc), culture and susceptibility testing
- 5073 Surveillance for multidrug resistant bacteria, gramnegative rods
- 5071 Surveillance for multidrug resistant bacteria, MRSA
- 5072 Surveillance for multidrug resistant bacteria, VRE
- 5065 Urine culture, quantitative screening, identification and susceptibility

EQA schemes suitable for direct nucleic acid testing methods

Bacteriology

- 5612 *Chlamydia trachomatis* and *Neisseria gonorrhoeae*, nucleic acid detection
- 5201 *Clostridioides difficile*, nucleic acid detection
- 5191 Faecal bacterial pathogens multiplex, nucleic acid detection
- 5253 *Helicobacter pylori*, nucleic acid detection
- 5221 Mycobacterial nucleic acid detection
- 5230 *Mycobacterium tuberculosis*, drug resistance, nucleic acid detection
- 5254 *Mycoplasma genitalium*, drug resistance, nucleic acid detection
- 5599 *Streptococcus agalactiae* (GBS), nucleic acid detection
- 5593 *Streptococcus pyogenes* (Group A), nucleic acid detection in pharyngeal sample
- 5071 Surveillance for multidrug resistant bacteria, MRSA
- 5072 Surveillance for multidrug resistant bacteria, VRE
- 5073 Surveillance for multidrug resistant bacteria, gramnegative rods

Parasitology

- 5472 Faecal parasites multiplex, nucleic acid detection
- 5430 Malaria, antigen and nucleic acid detection
- 5473 *Trichomonas vaginalis*, detection

Virology

- 5651 CMV and EBV, nucleic acid detection, quantitative
- 5679 Hepatitis B virus, nucleic acid detection (DNA)
- 5678 Hepatitis C virus, nucleic acid detection (RNA)
- 5680 HIV-1, nucleic acid detection (RNA)
- 5556 HSV1&2/VZV/T. *pallidum*, nucleic acid detection
- 5086 Human papillomavirus, nucleic acid detection
- 5670 Influenza virus A+B and RS virus, nucleic acid detection
- 5562 Multiple Respiratory Virus, nucleic acid detection
- 5683 Mpox (Monkeypox virus), nucleic acid detection
- 5675 Norovirus, nucleic acid detection
- 5676 SARS-CoV-2, nucleic acid detection

Multiplex

- 5191 Faecal bacterial pathogens multiplex, nucleic acid detection
- 5472 Faecal parasites multiplex, nucleic acid detection
- 5304 Gastrointestinal viral multiplex, nucleic acid detection
- 5303 Meningitis-encephalitis multiplex, nucleic acid detection
- 5300 Respiratory infections multiplex, nucleic acid detection
- 5302 Sexually transmitted diseases multiplex, nucleic acid detection

Mycology

- 5261 Fungal infections, nucleic acid detection

Multiplex

Multiplex EQA schemes are aimed to support laboratories to fulfill quality requirements of multiplex nucleic acid tests. All schemes include clinically relevant samples specially designed for multiplex nucleic acid testing. The multiplex schemes are annual programs and during the period of one calendar year, a comprehensive selection of listed pathogens will be covered.

	1	2	3	4	5	6	7	8	9	10	11	12
5100 Blood culture (incl. sepsis multiplex methods) 1			●		●					●		●
Specimens: 3 lyophilized samples. Brief case histories also given. Fresh blood is needed in the specimen preparation. The samples intended for susceptibility testing may include both international quality control strains and clinical strains. Examinations: Culture, identification, antimicrobial susceptibility testing. Direct nucleic acid detection from positive blood culture bottles by multiplex methods is included in the scheme. Notes: Fresh blood is needed but not included in the shipment.												
	1	2	3	4	5	6	7	8	9	10	11	12
5101 Blood culture, screening (incl. sepsis multiplex methods) 1			●		●					●		●
Specimens: 3 lyophilized samples. Brief case histories also given. Fresh blood is needed in the specimen preparation. Examinations: Culture, preliminary identification using Gram staining and/or direct nucleic acid detection from positive blood culture bottles by multiplex methods. The scheme is also suitable for stem cell banks screening only for possible growth. Notes: Fresh blood is needed but not included in the shipment.												
	1	2	3	4	5	6	7	8	9	10	11	12
5191 Faecal bacterial pathogens multiplex, nucleic acid detection 1				●		●				●		●
Specimens: 3 samples. Either lyophilized mixtures of bacteria and/or simulated samples, 1 mL. Examinations: Direct nucleic acid detection. Pathogens included are <i>Aeromonas</i> , <i>Campylobacter</i> , <i>E. coli</i> EHEC (stx1/stx2), <i>E. coli</i> EAEC, <i>E. coli</i> EIEC, <i>E. coli</i> EPEC, <i>E. coli</i> ETEC, <i>Plesiomonas</i> , <i>Salmonella</i> , <i>Shigella</i> and <i>Yersinia</i> . Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.												
	1	2	3	4	5	6	7	8	9	10	11	12
5472 Faecal parasites multiplex, nucleic acid detection 1		●			●			●			●	
Specimens: 3 lyophilized samples. Examinations: Nucleic acid detection of <i>Cryptosporidium</i> , <i>Dientamoeba fragilis</i> , <i>Entamoeba histolytica</i> , <i>Giardia lamblia</i> .												
	1	2	3	4	5	6	7	8	9	10	11	12
5304 Gastrointestinal viral multiplex, nucleic acid detection 1					●						●	
Specimens: 3 simulated samples, 1 mL. Examinations: Direct multiplex nucleic acid detection. Pathogens included are: Adenovirus, Astrovirus, Norovirus, Rotavirus, Sapovirus. Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.												
	1	2	3	4	5	6	7	8	9	10	11	12
5303 Meningitis-encephalitis multiplex, nucleic acid detection 1		●			●				●		●	
Specimens: 3 simulated samples, 1 mL. Examinations: Direct multiplex nucleic acid detection. Pathogens included are <i>Escherichia coli</i> K1, <i>Haemophilus influenzae</i> , <i>Listeria monocytogenes</i> , <i>Neisseria meningitidis</i> , <i>Streptococcus agalactiae</i> , <i>Streptococcus pneumoniae</i> , Cytomegalovirus (CMV), Enterovirus, Epstein-Barr virus (EBV), Herpes simplex virus 1 (HSV1), Herpes simplex virus 2 (HSV2), Human herpesvirus 6 (HHV6), Human parechovirus (HPeV), Varicella zoster virus (VZV) <i>Cryptococcus neoformans</i> and <i>Cryptococcus gattii</i> . Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.												
	1	2	3	4	5	6	7	8	9	10	11	12
5300 Respiratory infections multiplex, nucleic acid detection 1		●			●				●			●
Specimens: 4 simulated samples, 1 mL. Examinations: Direct multiplex nucleic acid detection. Pathogens included are adenovirus, bocavirus, <i>B. paraptussis</i> , <i>B. pertussis</i> , <i>C. pneumoniae</i> , coronavirus (OC43, 229E, NL63, HKU1), enterovirus, influenza virus A/B, <i>L. pneumophila</i> , metapneumovirus, <i>M. pneumoniae</i> , parainfluenzavirus 1-4, rhinovirus, RSV A/B, SARS-CoV-2 and <i>S. pneumoniae</i> . Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered. The samples contain hDNA.												
	1	2	3	4	5	6	7	8	9	10	11	12
5302 Sexually transmitted diseases multiplex, nucleic acid detection 1			●		●			●			●	
Specimens: 4 simulated swab/urine samples, 2 mL. Examinations: Direct multiplex nucleic acid detection. Pathogens included are <i>C. trachomatis</i> , <i>M. genitalium</i> , <i>M. hominis</i> , <i>N. gonorrhoeae</i> , <i>T. vaginalis</i> , <i>U. parvum</i> and <i>U. urealyticum</i> . Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered. The samples contain hDNA.												

Pathology

Seven high quality schemes are available for pathology laboratories. With changing topics in the rounds, both the routine and more advanced needs are covered. The challenges are realistic and include also less commonly encountered clinically relevant cases. In the cytology and histopathology schemes virtual microscopy is used. With this technology, viewing of several fields of vision and levels of focus are enabled on a computer screen simulating analysis with an optical microscope.

Pathology » Preanalytics

7806 Preanalytics and process in anatomic pathology

5

1 2 3 4 5 6 7 8 9 10 11 12

Specimens: 3-5 cases with preanalytical and process error(s).

Examinations: Participants are asked to find preanalytical or laboratory process error(s) in the cases.

Notes: The scheme is intended for all laboratory staff of pathology laboratories. Scheme is carried out online.

Pathology » Diagnostics

6701 Gynaecological cytology (liquid based), virtual microscopy

5

1 2 3 4 5 6 7 8 9 10 11 12

Specimens: Virtual images of at least 5 Papanicolaou stained slides of liquid based cytology (LBC) samples (ThinPrep). Diagnostics of cellular atypias in samples taken from gynaecological loci is assessed. Brief case histories and instructions are provided.

Examinations: Observations and diagnoses.

Notes: Virtual microscopy program does not work with Internet Explorer.

6700 Gynaecological cytology (smear), virtual microscopy

5

1 2 3 4 5 6 7 8 9 10 11 12

Specimens: Virtual images of at least 5 Papanicolaou stained slides of conventional pap smear samples. The samples are selected from routine cytological material. Diagnostics of cellular atypias in samples taken from gynaecological loci is assessed. Brief case histories and instructions are provided.

Examinations: Observations and diagnoses.

Notes: Virtual microscopy program does not work with Internet Explorer.

6542 Histopathology, virtual microscopy

5

1 2 3 4 5 6 7 8 9 10 11 12

Topics 2023: 1/2024 Skin pathology, 2/2024 Urothelial tumors

Specimens: Virtual images of at least 5 slides of miscellaneous tissue. Brief case histories and instructions are provided.

Examinations: Observations and diagnoses.

Notes: Topics may vary annually.

6702 Non-gynaecological cytology, virtual microscopy

5

1 2 3 4 5 6 7 8 9 10 11 12

Specimens: Virtual images of Papanicolaou stained slides of non-gynaecological cytosentrifuge (CCF) or smear preparations or May-Grünwald-Giemsa stained smears or imprint preparations. Images of at least 5 cases from representative loci. Brief case histories and instructions are provided.

Examinations: Observations and diagnoses.

Notes: Virtual microscopy program does not work with Internet Explorer.

Pathology » Technology

6543 Histological staining techniques

1

1 2 3 4 5 6 7 8 9 10 11 12

Topics: 1/2024 Masson Trichrome, Reticulin 2/2024 Helico-GIEMSA, AB-PAS.

Specimens: Unstained paraffin sections or smears.

Examinations: Staining of the slides. A set of stained slides is returned to Labquality for evaluation by an expert board.

Notes: Stains vary annually.

6600, 6600S Immunohistochemical staining methods

1

1 2 3 4 5 6 7 8 9 10 11 12

Topics: 1/2024 Unknown tumour: CD34, alfa-SMA, S-100, CD117, CYT5/6 2/2024 Breast cancer: PR, HER2, ER, Ki-67 ja HER2 -ISH* *) also double stain accepted, but no FISH 3/2024 Lymphoma: CD3, CD5, CD43, CD45, Pax5.

Specimens: Unstained paraffin embedded tissue from different tissue blocks or from one multiblock.

Examinations: Staining of the slides. A set of stained slides is returned to Labquality for evaluation by an expert board.

Notes: Changes in frequency, antibodies and sample type. Three rounds with distinct topics available annually. Multiblock samples are now included. Participants can select 3 or 5 antibodies of their choice in each round (6600S for 3 antibodies, 6600 for 5).

Preanalytics

The preanalytical schemes provide laboratories and POCT sites with tools for extending quality assurance beyond the commonly assessed analytical phase. As a result of the improved analytical quality, most errors have been suggested to now occur in the preanalytical phase. Managing all phases of the total testing cycle is equally important to ensure patient safety.

8817 HIL-index [DEKS]	3	<div> 12 grid with green dots at positions 2, 5, and 9. </div> <p>Specimens: 2 samples, 1 mL each.</p> <p>Examinations: Selected components are asked to be analysed. One of the samples is haemolysed, icteric or lipemic.</p>
7806 Preanalytics and process in anatomic pathology	5	<div> 12 grid with green dots at positions 5 and 11. </div> <p>Specimens: 3-5 cases with preanalytical and process error(s). Examinations: Participants are asked to find preanalytical or laboratory process error(s) in the cases.</p> <p>Notes: The scheme is intended for all laboratory staff of pathology laboratories. Scheme is carried out online.</p>
7800 Preanalytics, clinical chemistry	5	<div> 12 grid with green dots at positions 2 and 9. </div> <p>Specimens: 3 cases with preanalytical error(s). Examinations: Participants are asked to find preanalytical error(s) in the cases.</p> <p>Notes: The scheme is intended for personnel using POCT tests and devices. Scheme is carried out online.</p>
7802 Preanalytics, microbiology	5	<div> 12 grid with green dots at positions 4 and 10. </div> <p>Specimens: 3 cases with preanalytical error(s). Examinations: Participants are asked to find preanalytical error(s) in the cases.</p> <p>Notes: The scheme is intended for all laboratory staff of clinical microbiology laboratories. Scheme is carried out online.</p>
7807 Preanalytics, Pneumatic Sample Transport	3	<div> 12 grid with a green dot at position 9. </div> <p>Specimens: Two surrogate blood vials (i.e. measurement devices for recording 3-axis acceleration during pneumatic tube system transport (PTS)). Examinations: Vials are sent through the PTS as regular blood samples, no laboratory analysis is performed. Rejection probability of LDH, ASAT and K will be calculated using the cumulative vibration level, laboratory defined anyte-specific hemolysis cutoffs, and a hemolysis model.</p> <p>Notes: Vials are sent to the participating laboratories during September-October. Laboratories are asked to perform the recordings within one week upon receiving the vials and to return the vials using a courier (shipping costs not included). It is possible to measure 3 different lines from the same PTS manufacturer.</p>
7804 Preanalytics, POCT in chemistry	5	<div> 12 grid with a green dot at position 10. </div> <p>Specimens: 3 cases with preanalytical error(s). Examinations: Participants are asked to find preanalytical error(s) in the cases.</p> <p>Notes: The scheme is intended for personnel using POCT tests and devices. Scheme is carried out online.</p>
7801 Preanalytics, urine and blood sample collection	5	<div> 12 grid with a green dot at position 3. </div> <p>Specimens: 3 cases with preanalytical error(s). Examinations: Participants are asked to find preanalytical error(s) in the cases.</p> <p>Notes: The scheme is intended for personnel performing blood and urine sample collection. Scheme is carried out online.</p>

Others

Others » Andrology

	1	2	3	4	5	6	7	8	9	10	11	12
6400 Semen analysis										●		
Specimens: 3–6 digital videos and/or digital images. Examinations: Concentration, morphology and motility.												
Notes: Scheme is carried out online.												

Others » Clinical physiology

	1	2	3	4	5	6	7	8	9	10	11	12
7130 ECG, interpretation				●						●		
Specimens: 3 digital ECG registrations (images). Examinations: Technical quality and findings.												
Notes: Scheme is designed for nurses and general practitioners as well as for personnel in POCT units. Participants are evaluated on their responses on technical quality, findings or both if given.												

Others » Genetics

	1	2	3	4	5	6	7	8	9	10	11	12
3865 DNA single nucleotide variation [EQUALIS]												
Two rounds per year												
Specimens: Whole blood or extracted DNA. Blank samples (water) are sometimes included.												
Examinations: DNA-Apolipoprotein E genotype, DNA-Factor 2 (F2) g.20210G>A, DNA-Factor 5 (F5) c.1691G>A, DNA-Hemochromatosis (HFE) c.187C>G; c.845G>A, DNA-Lactase gene (LCT) g.13910C>T, DNA-Methylene tetrahydrofolate reductase (MTHFR) c.677C>T; c.1298A>Cx.												

	1	2	3	4	5	6	7	8	9	10	11	12
8850 DNA sequencing (EQUALIS)												
One round per year												
Specimens: Two samples (amplicons) and two primer pairs for a total of 4 sequence reactions are distributed to the participants. Examinations: Both ability to identify the sequence and report according to HGVS nomenclature are assessed.												
Notes: Organized in cooperation with Equalis. Registration before 1 January.												

Others » Laboratory instruments

	1	2	3	4	5	6	7	8	9	10	11	12
8814 ELISA reader photometry control [DEKS]												
One round per year												
Specimens: An ELISA-plate with built-in gray glass filters. Examinations: Control for the absorbance scale in ELISA reader.												
Notes: Absorbance traceable to NIST Control of the absorbance scale of ELISA readers.												

	1	2	3	4	5	6	7	8	9	10	11	12
8205 Pipette control		●						●				
Specimens: 2 liquid samples. Examinations: 100 – 1000 µL of the liquid samples shall be weighed by the participant, the result is reported in mg with a precision of two decimal places.												
Notes: Up to 5 single-channel pipettes can be controlled. A calibrated laboratory scale with 0.01 mg resolution is required. This EQA scheme does not replace standardized pipette calibration, it does not fulfil the accreditation requirements for pipette calibration.												

External quality assessment for extra-analytical phases

PREANALYTICAL EQA | ANALYTICAL EQA | POSTANALYTICAL EQA

Labquality has two advanced external quality assessment programs for extra-analytical phases of clinical laboratory investigation process. Preanalytical EQA programs are independent schemes for the evaluation of preanalytical phase and Integrated EQA programs includes pre- and/or postanalytical evaluation together with traditional EQA samples.

Pre- and postanalytical EQA programs

Preanalytical EQA programs

- | | | | |
|------|--|------|---|
| 8817 | HIL-index [DEKS] | 7807 | Preanalytics, Pneumatic sample transport |
| 7800 | Preanalytics, clinical chemistry | 7804 | Preanalytics, POCT in chemistry |
| 7802 | Preanalytics, microbiology | 7801 | Preanalytics, urine and blood sample collection |
| 7806 | Preanalytics and process in anatomic pathology | | |

Integrated EQA programs

Clinical chemistry

- | | | | |
|------------------|---|------|--------------------------------|
| 2570, 2580, 2590 | Glucose meters | 2200 | Lipids and lipoproteins |
| 2114 | Haemoglobin, 1-level, POCT | 2240 | Proteins, electrophoresis |
| 2300, 2300S | Hormones A: Basic analytes of hormone and immunochemistry | 2050 | Serum B and C (2-level) |
| 2301, 2301S | Hormones B: Steroid and peptide hormones | 2480 | Vitamin A, E and D metabolites |

Clinical physiology

- 7130 ECG, interpretation

Haematology

- 4480 Column agglutination methods: grading of reactions and patient cases

Immunology

- 5935 ANCA and GbmAb
5900 Antinuclear antibodies
5940 Coeliac disease, antibodies
5250 Interferon Gamma Release Assay (IGRA) for *Mycobacterium tuberculosis*
5920 Thyroid gland antibodies

Microbiology

- | | | | |
|-----------|---|------|--|
| 5950 | <i>Bordetella pertussis</i> , antibodies | 5668 | Measles virus, antibodies |
| 5960 | <i>Borrelia burgdorferi</i> , antibodies, European origin | 5669 | Mumps virus, antibodies |
| 5620 | <i>Chlamydia pneumoniae</i> , antibodies | 5980 | <i>Mycoplasma pneumoniae</i> , antibodies |
| 5650 | Cytomegalovirus, antibodies | 5660 | Parvovirus B19, antibodies |
| 5635 | Dengue virus, antibodies and antigen detection | 5560 | Puumala virus, antibodies |
| 5641 | EBV mononucleosis, specific antibodies | 5667 | Rubella virus, antibodies |
| 5080 | General Bacteriology 1 (aerobes and anaerobes) | 5880 | Syphilis serology |
| 5081 | General Bacteriology 2 (aerobes) | 5099 | Tick-borne encephalitis virus, antibodies |
| 5860 | <i>Helicobacter pylori</i> , antibodies | 5420 | Toxoplasma, antibodies |
| 5092 | Hepatitis A, antibodies | 5060 | Urine culture, quantitative screening |
| 5094–5096 | Hepatitis B and C, serology | 5065 | Urine culture, quantitative screening, identification and susceptibility |
| 5682 | Hepatitis E, antibodies | 5665 | Varicella-zoster virus, antibodies |
| 5091 | HIV, antibodies and antigen detection | 5636 | Zika virus, antibodies |
| 5089 | Human T-cell lymphotropic virus, antibodies | | |

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