



**LABQUALITY**  
We are Quality Makers

2024 PRODUCT CATALOGUE

**EXTERNAL  
QUALITY  
ASSESSMENT**

WWW.LABQUALITY.COM | INFO@LABQUALITY.FI

# LABQUALITY



**We are  
Quality Makers**

# Product Catalogue 2024

## **4 Service information**

## **5 Updates for 2024**

## **6 Clinical chemistry**

- 6 Allergology
- 6 Basic chemistry
- 7 Cardiac markers
- 8 Diabetes analysis
- 8 Endocrinology
- 9 General long-term clinical chemistry, known concentration
- 9 General short-term clinical chemistry, unknown concentration
- 10 Special chemistry
- 12 Specific proteins
- 13 Tumour markers
- 13 Urine analysis

## **15 Clinical chemistry and haematology**

- 16 Percentiler and flagger programs

## **16 Haematology**

- 16 Blood transfusion serological tests
- 16 Cell count and cell morphology
- 17 Coagulation

## **19 Blood banks and transfusion medicine**

## **19 Point-of-Care**

## **20 Immunology**

## **21 Microbiology**

- 21 Bacterial Serology
- 22 Bacteriology
- 25 Mycology
- 25 Parasitology
- 26 Virology

## **30 Nucleic acid detection**

## **31 Multiplex**

## **32 Pathology**

- 32 Preanalytics
- 32 Diagnostics
- 32 Technology

## **33 Preanalytics**

## **34 Others**

- 34 Andrology
- 34 Clinical physiology
- 34 Genetics
- 34 Laboratory instruments

## **35 Extra-analytical EQA programs**

## **36 Alphabetical scheme directory**

# 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](http://www.finas.fi), and the accreditation status of the EQA schemes is available on our website: [www.labquality.com](http://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](mailto: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](http://www.labquality.com)) or our customer service: [info@labquality.fi](mailto:info@labquality.fi).

## How to use the catalogue

The screenshot shows a scheme card for a POCT (Point-of-Care Testing) scheme. The card includes the following elements:

- Scheme code and name:** 1234 Scheme name
- Specimens:** (field for specimen details)
- Examinations:** (field for examination details)
- Results processed:** A bar chart showing the number of results processed over 12 rounds (delivery months). The chart shows 1 result in round 2, 1 in round 5, 1 in round 8, and 1 in round 11.
- Notes:** (field for notes)
- Additional info:** Three buttons: EQA<sup>3</sup> (green), NEW (blue), and POCT (pink).

**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

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
<b>2675</b> Allergen component (UK NEQAS)	1		•		•	•		•		•		•
<b>Specimens:</b> 2 liquid human serum samples for allergen component tests. <b>Examinations:</b> Allergen component test which covers recombinant allergens as well as the ISAC system.	<b>Notes:</b> Participation to all rounds required. Should be ordered until the beginning of November. Limited availability.											
<b>2681</b> Allergy in vitro diagnostics (SKML)	1	•			•			•		•		
<b>Specimens:</b> 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. <b>Examinations:</b> Total IgE, specific IgEs, allergen mixes and allergen components.	<b>Notes:</b> Participation to all rounds required. Should be ordered until the beginning of November. All samples are distributed in February.											
<b>2670</b> Allergy in vitro diagnostics (UK NEQAS)	1		•		•	•		•		•		•
<b>Specimens:</b> 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. <b>Examinations:</b> Total IgE and specific IgEs.	<b>Notes:</b> Participation to all rounds required. Should be ordered until the beginning of November. Limited availability.											
<b>2680</b> Eosinophil cationic protein	1		•		•	•		•		•		•
<b>Specimens:</b> 1 lyophilized human serum sample, 0.3 mL. <b>Examinations:</b> ECP.	<b>Notes:</b> Results are processed in connection with total IgE results of scheme 2670.											
<b>2685</b> Tryptase (UK NEQAS)	1	•		•	•		•		•		•	
<b>Specimens:</b> 2 liquid human serum samples. <b>Examinations:</b> Tryptase.	<b>Notes:</b> 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
<b>2100</b> Basic chemistry, POCT analyzers	3	•			•			•			•	
<b>Specimens:</b> 2 human serum samples, 1 mL. <b>Examinations:</b> 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.	<b>Notes:</b> 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.											
<b>2730</b> Erythrocyte sedimentation rate	3		•		•				•		•	
<b>Specimens:</b> 1 artificial blood cell suspension, ~ 4 mL. <b>Examinations:</b> ESR.	<b>Notes:</b> Not suitable for Algor iSed.											



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

**2731** Erythrocyte sedimentation rate: Alifax-analyzers; Greiner tube **3**

**Specimens:** 3 test tubes containing synthetic latex solution, 3 mL.

**Examinations:** ESR.

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

**2732** Erythrocyte sedimentation rate: Alifax-analyzers; Sarstedt tube **3**

**Specimens:** 3 test tubes containing synthetic latex solution, 3 mL.

**Examinations:** ESR.

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

**2750** Faecal occult blood, qualitative **3**

**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.

POCT

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

**2749** Faecal occult blood, quantitative **3**

**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.

POCT

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

**2114** Haemoglobin, 1-level, POCT **3**

**Specimens:** 1 bovine sample, 1 mL.  
**Examinations:** Haemoglobin.

**Notes:** Only for POCT devices. Not suitable for Diaspect, CompoLab, Hemocue 301 or Hemocue 801.

POCT

EQA<sup>3</sup>

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

**2115** Haemoglobin, 1-level HemoCue 801 and HemoCue 301 **3**

**Specimens:** 1 bovine sample, 1 mL.  
**Examinations:** Haemoglobin.

**Notes:** Only for HemoCue 801 and HemoCue 301.

POCT

EQA<sup>3</sup>

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

**2113** Haemoglobin, 3-level samples, cell counters and analyzers **3**

**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.

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

**2112** Haemoglobin, 3-level samples, POCT **3**

**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.

POCT

Clinical chemistry » **Cardiac markers**

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

**1541** CRP, low concentration **3**

**Specimens:** 1 Human serum sample, 1 mL.  
**Examinations:** CRP.

**Notes:** CRP, low concentration sample is included in product 2541 Myocardial markers and CRP.

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

**2540** Myocardial markers **3**

**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

**2541 Myocardial markers and CRP, low concentration**

3



**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

**2690 Natriuretic peptides 1, B-type, NT-ProBNP**

3



**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

**2691 Natriuretic peptides 2, B-type, BNP**

3



**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

**2530 Troponin I and troponin T, detection, POCT**

3



**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

**2570, 2580, 2590** Glucose meters

3



**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

**1261 Haemoglobin A1c, liquid samples**

3



**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

**1263 Haemoglobin A1c, liquid samples, POCT**

3



**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

**2526 Ketones (beta-hydroxybutyrate)**

3



**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

**2300, 2300S** Hormones A: Basic analytes of hormone and immunochemistry

3



**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

**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

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

**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.  
**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.

**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.

EQA 3

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

**1301** Hormones B, extra set of samples

3

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

**Specimens:** 2 human serum samples, 3 mL.

**Notes:** Only in connection with scheme 2301.

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

**2250** Parathyroid hormone, intact

3

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

**Specimens:** 2 lyophilized human serum samples, 3 mL.

**Examinations:** PTH, intact.

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

**2704** ACTH and cortisol

3

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

**Specimens:** 2 lyophilized human serum samples, 3 mL.

**Examinations:** Adrenocorticotrophic hormone (ACTH) and Cortisol.

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

**2706** Salivary Cortisol

3

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

**Specimens:** 2 liquid or lyophilized simulated salivary samples.

**Examinations:** Salivary cortisol.

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

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

**Specimens:** 1 lyophilized human serum sample, 5 mL.  
**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.  
**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.

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

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

**1072** General clinical chemistry, 1-level sample (Serum A)  
**1072S**

3

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

**Specimens:** Lyophilized serum sample, 3 - 5 mL, samples are selected to cover a wide concentration range.  
**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.  
**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.

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

**2050** General clinical chemistry, 2-level sera (serum B and C)

3

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

**Specimens:** 2 liquid human serum samples covering a wide concentration range, 3-5 mL.  
**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.  
**Notes:** Comparison of two different concentration ranges simultaneously. Reference method values available occasionally for some of the analytes.

EQA 3

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

**2610** Acid-base status and electrolytes

1

**Specimens:** 3 buffered artificial samples, 2.5 mL.  
**Examinations:** Chloride, creatinine, glucose, ionized calcium, ionized magnesium, lactate, pCO<sub>2</sub>, pH, pO<sub>2</sub>, potassium, sodium, urea, base excess, HCO<sub>3</sub>.

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

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

**2510** Alcohol in blood: Ethanol + methanol + isopropanol

3

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

**Examinations:** Ethanol, methanol, isopropanol.

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

**2516** Alcohol in blood: Ethylene glycol

3

**Specimens:** 1-level whole blood samples.

**Examinations:** Ethylene glycol.

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

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

3

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

**Examinations:** Ethanol, methanol, isopropanol, acetone.

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

**2517** Alcohol in serum: Ethylene glycol

3

**Specimens:** 1-level serum samples.

**Examinations:** Ethylene glycol.

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

**2105** Ammonium ion

1

**Specimens:** 2 serum based or buffered samples.

**Examinations:** Ammonium ion.

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

**2210** Angiotensin convertase (ACE)

3

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

**Examinations:** ACE.

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

**2520** Bile acids

3

**Specimens:** 2 pooled human serum samples, 0.5 mL.

**Examinations:** Bile acids.

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

**2109** Bilirubin, conjugated

3

**Specimens:** 2 lyophilized or liquid samples.

**Examinations:** Total bilirubin, conjugated bilirubin.

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

**2040** Bilirubin, neonatal

3

**Specimens:** 2 lyophilized or liquid samples.

**Examinations:** Bil, neo.

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

**8805** Cystatin C [DEKS]

5

**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.

Two rounds per year

<b>2754</b> Faecal elastase	1	2	3	4	5	6	7	8	9	10	11	12
			●						●			
<b>Specimens:</b> 2 lyophilized faecal specimens, 0.5 mL.		<b>Examinations:</b> Elastase.										

<b>2753</b> Gastric biomarkers	1	2	3	4	5	6	7	8	9	10	11	12
						●					●	
<b>Specimens:</b> 2 lyophilized samples, 3 mL.		<b>Examinations:</b> Pepsinogen I, Pepsinogen II, Gastrin-17, Helicobacter pylori Ab.										

<b>2150</b> Haemoxymeters	1	2	3	4	5	6	7	8	9	10	11	12
			●						●			
<b>Specimens:</b> 2 liquid (1.2 mL) samples. <b>Examinations:</b> FO2Hb, FCOHb, FMETHb, ctHb, sO2.		<b>Notes:</b> Order one sample set for each analyzer.										

<b>8816</b> Homocysteine [DEKS]	1	2	3	4	5	6	7	8	9	10	11	12
			●			●		●			●	
<b>Specimens:</b> 2 plasma samples 1 mL each. <b>Examinations:</b> P-Homocysteine.		<b>Notes:</b> All samples are distributed in February.										

<b>8853</b> Iohexol (EQUALIS)	1	2	3	4	5	6	7	8	9	10	11	12
	Four rounds per year											
<b>Specimens:</b> Two plasma samples. <b>Examinations:</b> P-Iohexol, Pt-GFR (Iohexol) absolute, Pt-GFR (Iohexol) relative.		<b>Notes:</b> Organized in cooperation with Equalis. Registration before 1 January.										

NEW

<b>8815</b> Methyl malonate [DEKS]	1	2	3	4	5	6	7	8	9	10	11	12
			●			●		●			●	
<b>Specimens:</b> 2 serum samples 1,5 mL each. <b>Examinations:</b> P-Methylmalonat.		<b>Notes:</b> All samples are distributed in February.										

<b>2651</b> Nasal swab cells	1	2	3	4	5	6	7	8	9	10	11	12
												●
<b>Specimens:</b> 4 digital images of MGG and methylene eosin stained samples.		<b>Examinations:</b> Eosinophils, neutrophils.										

<b>8854</b> Phosphatidyl ethanol in blood (EQUALIS)	1	2	3	4	5	6	7	8	9	10	11	12
	Four rounds per year											
<b>Specimens:</b> Three EDTA blood samples. <b>Examinations:</b> B -PEth.		<b>Notes:</b> Organized in cooperation with Equalis. Registration before 1 January.										

NEW

<b>2652</b> Sputum cells	1	2	3	4	5	6	7	8	9	10	11	12
												●
<b>Specimens:</b> 4 digital images of MGG and methylene eosin stained samples		<b>Examinations:</b> Eosinophils, neutrophils										

<b>2640</b> Synovial fluid crystals	1	2	3	4	5	6	7	8	9	10	11	12
			●						●			
<b>Specimens:</b> 2-3 slides prepared from patient samples.		<b>Examinations:</b> Monosodium urate monohydrate and calcium pyrophosphate dihydrate crystals.										

<b>2410</b> Therapeutic drugs	1	2	3	4	5	6	7	8	9	10	11	12
			●		●			●			●	
<b>Specimens:</b> 2 liquid or lyophilized human serum samples, 5 mL. <b>Examinations:</b> 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.										

<b>2480</b> Vitamin A, E and D metabolites	1	2	3	4	5	6	7	8	9	10	11	12
				●							●	
<b>Specimens:</b> 2 liquid human serum samples, 1 mL. Pre- and/or post-analytical cases in part of the rounds.		<b>Examinations:</b> Vitamin A, vitamin E, 25(OH)D-vitamin, 1,25(OH)2-D-vitamin, pre- and/or post-analytical indicators. <b>Notes:</b> Target values for 25(OH)D vitamin metabolite are provided.										

EOA<sup>3</sup>

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

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

## Clinical chemistry » Specific proteins

<b>2020</b> C-reactive protein (CRP) for analyzers	1	2	3	4	5	6	7	8	9	10	11	12
		●		●		●		●		●		●
<b>Specimens:</b> 2 liquid human serum or plasma samples, 1 mL. <b>Examinations:</b> CRP.		<b>Notes:</b> 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.										

<b>2132</b> C-reactive protein (CRP), POCT	1	2	3	4	5	6	7	8	9	10	11	12
		●		●		●		●		●	●	
<b>Specimens:</b> 2 liquid human plasma samples, 1 mL. <b>Examinations:</b> CRP.		<b>Notes:</b> 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.										

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

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

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

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

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

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

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

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

EQA<sup>3</sup>

<b>2230</b> Proteins, immunochemical determinations	1	2	3	4	5	6	7	8	9	10	11	12
	3	•		•		•			•			
<b>Specimens:</b> 2 liquid human serum samples, 1 mL. <b>Examinations:</b> Alpha-1-antitrypsin, alpha-2-macroglobulin, albumin, ceruloplasmin, complement C3, complement C4, haptoglobin, hemopexin,						IgA, IgG, IgLcKappa, IgLcLambda, IgLcKappa free, IgLcLambda free, IgM, orosomuroid, pre-albumin, RBP, transferrin, transferrin receptor.						

## Clinical chemistry » Tumour markers

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

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

<b>2700,2700S</b> Tumour markers	1	2	3	4	5	6	7	8	9	10	11	12
	3	•			•			•			•	
<b>Specimens:</b> 2 liquid human serum samples, 2 mL. <b>Examinations:</b> 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.						<b>Notes:</b> 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.						

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

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

NEW

## Clinical chemistry » Urine analysis

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

NEW

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

POCT

<b>3300</b> Drug of abuse screening in urine	1	2	3	4	5	6	7	8	9	10	11	12
	3	•				•			•			
<b>Specimens:</b> 2 authentic samples, 5 mL. <b>Examinations:</b> 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- antidepressants, Tramadol.						<b>Notes:</b> 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.

**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.

**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
<b>3501</b> Flagger program (Noklus)	Twelve rounds per year											
<p><b>Specimens:</b> The percentage of patient results outside the reference limits.</p> <p><b>Examinations:</b> 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>	<p><b>Notes:</b> 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>											
<b>3500</b> Percentiler program (Noklus)	Twelve rounds per year											
<p><b>Specimens:</b> Results from selected patient groups are used to calculate instrument-specific daily medians.</p> <p><b>Examinations:</b> 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>	<p><b>Notes:</b> 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>											



# 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

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

## Haematology » Cell count and cell morphology

		1	2	3	4	5	6	7	8	9	10	11	12
<b>4100</b>	Basic blood count, 1-level sample	③	●	●	●	●	●	●	●	●	●	●	●
<b>Specimens:</b> 1 blood cell suspension, 3 mL. <b>Examinations:</b> Hb, HCT, MCH, MCHC, MCV, PLT, RBC, RDW (red cell distribution width), WBC, cumulative patient means of MCH, MCHC, MCV.													
		1	2	3	4	5	6	7	8	9	10	11	12
<b>4110</b>	Basic blood count, 2-level samples	③	●	●	●	●	●	●	●	●	●	●	●
<b>Specimens:</b> 2 blood cell suspensions, 3 mL. <b>Examinations:</b> Hb, HCT, MCH, MCHC, MCV, PLT, RBC, RDW (red cell distribution width), WBC, cumulative patient means of MCH, MCHC, MCV.													
		1	2	3	4	5	6	7	8	9	10	11	12
<b>4180</b>	Leucocyte differential count and evaluation of blood cell morphology, virtual microscopy	③				●					●		
<b>Specimens:</b> 2-3 patient cases as virtual slide images. <b>Examinations:</b> 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**

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

**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**

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

**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**

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

**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**

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

**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**

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

**Specimens:** 1 blood cell suspension, 2 mL.  
**Examinations:** Leucocytes.

**Notes:** The scheme is for HemoCue WBC Systems.

POCT

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

**4190 White blood cell differential count: HemoCue, POCT** **3**

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

**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).

POCT

**Haematology » Coagulation**

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

**4330 Activated partial thromboplastin time, INR and fibrinogen** **3**

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

**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**

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

**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**

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

**Specimens:** 2 liquid commercial plasma samples, 0.5 mL.  
**Examinations:** D-Dimer.

**Notes:** For clinical laboratories and POCT sites.

POCT

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

**4389 D-dimer, extra set of samples**

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

**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 Xprexia, POCT** **3**

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

**Specimens:** Liquid plasma sample.  
**Examinations:** Prothrombin time in INR unit.

**Notes:** Only for CoaguChek, i-STAT and Siemens Xprexia meters.

POCT

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

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

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

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

	<b>4386</b> Special coagulation	③	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 2 lyophilized plasma samples, 0.5–1 mL.			●			●			●			●	
			<b>Examinations:</b> 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 <sup>3</sup>	<b>5935 ANCA and GbmAb</b>	3	1	2	3	4	5	6	7	8	9	10	11	12
	<p><b>Specimens:</b> 2 liquid human serum or plasma samples, 0.5 mL.</p> <p><b>Examinations:</b> Anti-neutrophil cytoplasmic Ab, Myeloperoxidase Ab, Proteinase-3 Ab and Glomerular basement membrane Ab.</p>	<p>Pre- and/or post-analytical cases in part of the rounds.</p> <p><b>Notes:</b> Quantitative results are also processed (Pr3Ab, MPOAb, GbmAb).</p>												
EQA <sup>3</sup>	<b>5900 Antinuclear antibodies</b>	3	1	2	3	4	5	6	7	8	9	10	11	12
	<p><b>Specimens:</b> 3 liquid human serum or plasma samples, 0.6 mL.</p> <p><b>Examinations:</b> ANA, ENAAb, RNPAb, SmAb (SmDAb and/or SmBAB), 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.</p>	<p><b>Notes:</b> Extractable antinuclear antigens and double-stranded deoxyribonucleic acid are included.</p>												
EQA <sup>3</sup>	<b>5938 Autoimmune diagnostics, IFA interpretation</b>	3	1	2	3	4	5	6	7	8	9	10	11	12
	<p><b>Specimens:</b> 3–5 cases (digital images).</p>	<p><b>Examinations:</b> Interpretation (ANA, ANCA and EMA images).</p>												
EQA <sup>3</sup>	<b>5930 Autoimmune liver disease and gastric parietal cell antibodies</b>	3	1	2	3	4	5	6	7	8	9	10	11	12
	<p><b>Specimens:</b> 2 liquid human serum or plasma samples, 0.4 mL.</p>	<p><b>Examinations:</b> Smooth muscle antibodies, Mitochondrial antibodies, Gastric parietal cell antibodies.</p>												
EQA <sup>3</sup>	<b>5940 Coeliac disease, antibodies</b>	3	1	2	3	4	5	6	7	8	9	10	11	12
	<p><b>Specimens:</b> 2 liquid human serum or plasma samples, 0.7 mL.</p> <p><b>Examinations:</b> 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.</p>	<p><b>Notes:</b> Quantitative results are also processed (tTGAb, tTGAbG, DGPAb, DGPAbG). Scheme is not suitable for POCT.</p>												
EQA <sup>3</sup>	<b>5250 Interferon Gamma Release Assay (IGRA) for <i>Mycobacterium tuberculosis</i></b>	3	1	2	3	4	5	6	7	8	9	10	11	12
	<p><b>Specimens:</b> 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.</p>	<p><b>Examinations:</b> Quantitative result and qualitative interpretation of TblNFg. The scheme is not suitable for the TB T-Spot test.</p>												
EQA <sup>3</sup>	<b>5937 Phospholipid antibodies</b>	3	1	2	3	4	5	6	7	8	9	10	11	12
	<p><b>Specimens:</b> 2 liquid human serum or plasma samples, 0.5 mL.</p> <p><b>Examinations:</b> Phospholipid antibodies, Cardiolipin antibodies (IgG and IgM),</p>	<p>beta-2-glycoprotein antibodies (IgG and IgM).</p> <p><b>Notes:</b> Quantitative results are also processed.</p>												
EQA <sup>3</sup>	<b>5820 Rheumatoid factor and citrullin peptide antibodies</b>	3	1	2	3	4	5	6	7	8	9	10	11	12
	<p><b>Specimens:</b> 2 liquid human-derived samples, 0.7 mL.</p>	<p><b>Examinations:</b> Qualitative and quantitative RF, CCPAb.</p>												
EQA <sup>3</sup>	<b>5920 Thyroid gland antibodies</b>	3	1	2	3	4	5	6	7	8	9	10	11	12
	<p><b>Specimens:</b> 2 liquid human serum or plasma samples, 0.4 mL.</p> <p><b>Examinations:</b> Thyroglobulin antibodies and thyroid peroxidase antibodies.</p>	<p>Pre- and/or post-analytical cases in part of the rounds.</p> <p><b>Notes:</b> Quantitative results are also processed.</p>												
EQA <sup>3</sup>	<b>5913 TSH receptor antibodies</b>	3	1	2	3	4	5	6	7	8	9	10	11	12
	<p><b>Specimens:</b> 2 liquid human serum or plasma samples, 0.4 mL.</p> <p><b>Examinations:</b> Thyroid stimulating hormone receptor antibodies.</p>	<p><b>Notes:</b> Quantitative results are also processed.</p>												

# 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

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

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



<b>5190 Faecal culture</b>	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td></td><td>●</td><td></td><td>●</td><td></td><td></td><td></td><td>●</td><td></td><td>●</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12				●		●				●		●
1	2	3	4	5	6	7	8	9	10	11	12														
			●		●				●		●														
<b>Specimens:</b> 2 lyophilized mixtures of bacteria. <b>Examinations:</b> 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> .																								
<b>5080 General Bacteriology 1 (aerobes and anaerobes)</b>	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td>●</td><td></td><td>●</td><td></td><td></td><td></td><td>●</td><td></td><td></td><td>●</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12			●		●				●			●
1	2	3	4	5	6	7	8	9	10	11	12														
		●		●				●			●														
<b>Specimens:</b> 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.	<b>Examinations:</b> Isolation of pathogens and antimicrobial susceptibility testing, pre- and/or post-analytical cases. <b>Notes:</b> 5080 includes 5081, General Bacteriology 2.																								
<b>5081 General Bacteriology 2 (aerobes)</b>	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td>●</td><td></td><td>●</td><td></td><td></td><td></td><td>●</td><td></td><td></td><td>●</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12			●		●				●			●
1	2	3	4	5	6	7	8	9	10	11	12														
		●		●				●			●														
<b>Specimens:</b> 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.	<b>Examinations:</b> Isolation of pathogens and antimicrobial susceptibility testing, pre- and/or post-analytical cases. <b>Notes:</b> 5080 General Bacteriology 1 includes 5081.																								
<b>5041 Gram stain, blood culture</b>	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12	●			●			●			●		
1	2	3	4	5	6	7	8	9	10	11	12														
●			●			●			●																
<b>Specimens:</b> 2 air-dried, unfixed microbe suspensions on slides. Brief case histories also given.	<b>Examinations:</b> Staining and microscopy.																								
<b>5040 Gram stain, colonies</b>	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12	●			●			●			●		
1	2	3	4	5	6	7	8	9	10	11	12														
●			●			●			●																
<b>Specimens:</b> 3 air-dried, unfixed microbe suspensions on a slide.	<b>Examinations:</b> Staining and microscopy.																								
<b>5596 <i>Helicobacter pylori</i>, antigen detection in faeces</b>	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12			●			●			●			●
1	2	3	4	5	6	7	8	9	10	11	12														
		●			●			●			●														
<b>Specimens:</b> 3 samples: lyophilized faecal. <b>Examinations:</b> Antigen detection.	<b>Notes:</b> For clinical laboratories and POCT sites.																								
<b>5253 <i>Helicobacter pylori</i>, nucleic acid detection</b>	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td>●</td><td></td><td></td><td></td><td></td><td></td><td>●</td><td></td><td></td><td></td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12			●						●			
1	2	3	4	5	6	7	8	9	10	11	12														
		●						●																	
<b>Specimens:</b> 3 simulated swab samples or lyophilized faecal samples. <b>Examinations:</b> <i>H. pylori</i> nucleic acid detection. Clarithromycin susceptibility (occasionally).	<b>Notes:</b> The samples are suitable for all <i>H. pylori</i> NAT methods, clarithromycin resistant samples can be included. The samples contain hDNA.																								
<b>5597 Legionella, antigen detection in urine</b>	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td>●</td><td></td><td>●</td><td></td><td></td><td></td><td>●</td><td></td><td></td><td>●</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12			●		●				●			●
1	2	3	4	5	6	7	8	9	10	11	12														
		●		●				●			●														
<b>Specimens:</b> 3 simulated urine samples.	<b>Examinations:</b> Legionella antigen detection.																								
<b>5230 <i>Mycobacterium tuberculosis</i>, drug resistance, nucleic acid detection</b>	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12			●			●			●			●
1	2	3	4	5	6	7	8	9	10	11	12														
		●			●			●			●														
<b>Specimens:</b> 2 simulated samples, 1 mL.	<b>Examinations:</b> <i>Mycobacterium tuberculosis</i> nucleic acid detection, rifampicin susceptibility and isoniazid susceptibility.																								
<b>5231 <i>Mycobacterium tuberculosis</i>, drug resistance, nucleic acid detection, extra set of samples</b>	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12			●			●			●			●
1	2	3	4	5	6	7	8	9	10	11	12														
		●			●			●			●														
<b>Specimens:</b> 2 simulated samples, 1 mL.	<b>Notes:</b> Only in connection with scheme 5230.																								
<b>5220 Mycobacterial culture and stain</b>	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12			●			●			●			●
1	2	3	4	5	6	7	8	9	10	11	12														
		●			●			●			●														
<b>Specimens:</b> 2 lyophilized samples and 2 fixed smears on slides. <b>Examinations:</b> Detection of <i>Mycobacterium tuberculosis</i> , <i>Mycobacterium tuberculosis</i> complex and atypical mycobacteria: culture, direct nucleic acid	detection, acid-fast staining and microscopy. <b>Notes:</b> See also product 5250 IGRA for <i>M. tuberculosis</i> .																								

EQAS

EQAS

POCT

NEW

POCT

NEW

<b>5221</b> Mycobacterial nucleic acid detection	1	2	3	4	5	6	7	8	9	10	11	12
	①			●			●			●		

**Specimens:** 2 lyophilized samples.  
**Examinations:** Direct nucleic acid detection.

**Notes:** 5220 includes also this examination. For additional set of samples, order scheme 5222.

<b>5222</b> Mycobacteria, extra set of samples	1	2	3	4	5	6	7	8	9	10	11	12
			●			●				●		

**Specimens:** 2 lyophilized samples.

**Notes:** Only in connection with scheme 5220 or 5221.

<b>5240</b> Mycobacterial stain	1	2	3	4	5	6	7	8	9	10	11	12
	①			●			●			●		

**Specimens:** 2 fixed smears on slides.

**Examinations:** Acid-fast staining and microscopy.

<b>5254</b> <i>Mycoplasma genitalium</i> , drug resistance, nucleic acid detection	1	2	3	4	5	6	7	8	9	10	11	12
	③			●								●

**Specimens:** 3 simulated swab samples.  
**Examinations:** *M. genitalium* nucleic acid detection, macrolide (azithromycin) susceptibility.

**Notes:** The samples are suitable for all *M. genitalium* NAT methods and primarily intended for methods detecting point mutations causing macrolide resistance. The samples contain hDNA.

<b>5120</b> <i>Neisseria gonorrhoeae</i> (Gc), culture and susceptibility testing	1	2	3	4	5	6	7	8	9	10	11	12
	①			●		●			●			●

**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.

**Examinations:** Culture, identification and antimicrobial susceptibility testing. Also suitable for laboratories performing preliminary screening.

<b>5180</b> Salmonella culture	1	2	3	4	5	6	7	8	9	10	11	12
	①			●		●				●		

**Specimens:** 2 lyophilized mixtures of bacteria. **Examinations:** Culture.

**Notes:** 5190 also includes 5180.

<b>5599</b> <i>Streptococcus agalactiae</i> (GBS), nucleic acid detection	1	2	3	4	5	6	7	8	9	10	11	12
	③			●		●			●			●

**Specimens:** 2 swab samples. Samples also include normal flora.  
**Examinations:** Direct nucleic acid detection.

**Notes:** The samples contain hDNA. See also product 5594 for *S. agalactiae* (GBS) culture.

<b>5594</b> <i>Streptococcus agalactiae</i> (GBS), culture	1	2	3	4	5	6	7	8	9	10	11	12
	①			●		●			●			●

**Specimens:** 2 lyophilized samples. Samples include pathogens and/or normal flora.

**Examinations:** Culture.  
**Notes:** See also product 5599 for direct nucleic acid detection.

<b>5598</b> <i>Streptococcus pneumoniae</i> , antigen detection in urine	1	2	3	4	5	6	7	8	9	10	11	12
	③			●		●				●		

**Specimens:** 3 simulated urine specimens.

**Examinations:** *S. pneumoniae* antigen detection.

<b>5595</b> <i>Streptococcus pyogenes</i> (Group A), antigen detection in pharyngeal sample	1	2	3	4	5	6	7	8	9	10	11	12
	③			●		●				●		

**Specimens:** 3 simulated pharyngeal samples.  
**Examinations:** Antigen detection.

**Notes:** For clinical laboratories and POCT sites.

<b>5593</b> <i>Streptococcus pyogenes</i> (Group A), nucleic acid detection in pharyngeal sample	1	2	3	4	5	6	7	8	9	10	11	12
	③			●		●				●		

**Specimens:** 3 simulated pharyngeal samples.

**Examinations:** Nucleic acid detection.

5073 Surveillance for multidrug resistant bacteria, gramnegative rods	1	2	3	4	5	6	7	8	9	10	11	12
	①	●				●			●		●	
<b>Specimens:</b> 1 lyophilized mixture of microbes; including pathogens and/or normal flora.						<b>Examinations:</b> 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.						

5071 Surveillance for multidrug resistant bacteria, MRSA	1	2	3	4	5	6	7	8	9	10	11	12
	①	●				●			●		●	
<b>Specimens:</b> 1 lyophilized mixture of microbes; including pathogens and/or normal flora.						<b>Examinations:</b> 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.						

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

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

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

EQA<sup>3</sup>

5065 Urine culture, quantitative screening, identification and susceptibility	1	2	3	4	5	6	7	8	9	10	11	12
	①		●			●			●			●
<b>Specimens:</b> 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.						<b>Examinations:</b> Culture, quantitation, identification and antimicrobial susceptibility testing, pre-and/or post-analytical indicators.						
<b>Examinations:</b> Culture and quantitation, pre-and/or post-analytical						<b>Notes:</b> Scheme 3170 available for urine bacterial screening with automated analyzers.						

EQA<sup>3</sup>

## Microbiology » Mycology

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

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

## Microbiology » Parasitology

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

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

POCT

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

**5462 Malaria screening, Giemsa stain**

3

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

**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

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

**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

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

**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

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

**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

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

**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

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

**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

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

**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

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

**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).

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

**5420 Toxoplasma, antibodies**

3

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

**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.

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

**5473 *Trichomonas vaginalis*, detection**

3

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

**Specimens:** 3 simulated samples.

**Examinations:** Detection of *Trichomonas vaginalis* 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

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

**Specimens:** 5 samples simulating plasma, 1.5 mL  
**Examinations:** CMV and EBV NAT (quantitative).

**Notes:** Quantitative result processing.

<b>5650</b> Cytomegalovirus, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
			●			●				●			
<b>Specimens:</b> 3 liquid human plasma samples, 0.7 mL. Authentic commutable samples: each batch originates from a single human donor.		<b>Examinations:</b> Cytomegalovirus IgG, IgM and total antibodies, IgG avidity and post-analytical clinical interpretation.											

EQA<sup>3</sup>

<b>5635</b> Dengue virus, antibodies and antigen detection	3	1	2	3	4	5	6	7	8	9	10	11	12
				●			●				●		●
<b>Specimens:</b> 3 human serum or plasma samples, 0.5 mL. Authentic, commutable samples from a single human donor or occasionally simulated samples.		<b>Examinations:</b> Dengue virus IgG and IgM antibodies, Dengue virus antigen (NS1) and post-analytical clinical interpretation.											

POCT

EQA<sup>3</sup>

<b>5640</b> EBV mononucleosis, POCT	3	1	2	3	4	5	6	7	8	9	10	11	12
			●			●					●		
<b>Specimens:</b> 3 liquid human plasma samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.		<b>Examinations:</b> MonAb. <b>Notes:</b> For clinical laboratories and POCT sites.											

POCT

<b>5641</b> EBV mononucleosis, specific antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
			●			●					●		
<b>Specimens:</b> 3 liquid human plasma samples, 1.4 mL. Authentic commutable samples: each batch originates from a single human donor.		<b>Examinations:</b> EBNA AbG, EBV VCA AbG, EBV VCA AbM, IgG Avidity and post-analytical clinical interpretation.											

EQA<sup>3</sup>

<b>5092</b> Hepatitis A, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
			●			●				●			●
<b>Specimens:</b> 3 liquid human plasma samples, 0.6 mL. Authentic commutable samples: each batch originates from a single human donor.		<b>Examinations:</b> HAVAb, HAVAbM, HAVAbG and post-analytical clinical interpretation.											

EQA<sup>3</sup>

<b>5094–5096</b> 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
			●			●				●			●
<b>Specimens:</b> 3 liquid human plasma samples, 0.6 / 1.2 or 2.0 mL. Authentic commutable samples: each batch originates from a single human donor.		<b>Volume specific product codes:</b> 5094: for 0.6 mL human plasma specimens 5095: for 1.2 mL human plasma specimens 5096: for 2.0 mL human plasma specimens											
<b>Examinations:</b> HBcAb, HBcAbM, HBeAb, HBeAg, HBsAb (qual), HBsAg, HCVAb, HCVAbCt and post-analytical clinical interpretation.													

EQA<sup>3</sup>

<b>5093</b> Hepatitis B, s-antigen antibodies, quantitative	3	1	2	3	4	5	6	7	8	9	10	11	12
		●			●			●				●	
<b>Specimens:</b> 2 liquid human plasma or serum samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.		<b>Examinations:</b> HBsAb (anti-HBs), quantitative.											

<b>5679</b> Hepatitis B virus, nucleic acid detection (DNA)	3	1	2	3	4	5	6	7	8	9	10	11	12
				●		●					●		●
<b>Specimens:</b> 3 lyophilized or liquid plasma samples, 1.2 mL.		<b>Examinations:</b> HBV DNA, quantitative and/or qualitative nucleic acid detection.											

<b>5678</b> Hepatitis C virus, nucleic acid detection (RNA)	3	1	2	3	4	5	6	7	8	9	10	11	12
				●		●					●		●
<b>Specimens:</b> 3 lyophilized or liquid plasma samples, 1.2 mL.		<b>Examinations:</b> HCV RNA, quantitative and/or qualitative nucleic acid detection.											

<b>5682</b> Hepatitis E, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
						●							●
<b>Specimens:</b> 3 liquid human plasma samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.		<b>Examinations:</b> Hepatitis E virus IgG and IgM antibodies, post-analytical clinical interpretation.											

EQA<sup>3</sup>

<b>5555</b> Herpes simplex 1 and 2, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
			●			●				●			●
<b>Specimens:</b> 3 liquid human plasma or serum samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor. Occasionally simulated samples.		<b>Examinations:</b> HSV IgG (qualitative/quantitative), HSV IgM, HSV-1 IgG, HSV-2 IgG.											

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

<b>5683</b> Mpox (Monkeypox virus), nucleic acid detection <b>Specimens:</b> 2 swab samples simulating patient samples from lesions. <b>Examinations:</b> Mpox NAT.	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td></td><td>●</td><td></td><td></td><td></td><td></td><td></td><td>●</td><td></td><td></td> </tr> </table> <b>3</b> <b>Notes:</b> The samples contain hDNA.	1	2	3	4	5	6	7	8	9	10	11	12				●						●			NEW
1	2	3	4	5	6	7	8	9	10	11	12															
			●						●																	
<b>5675</b> Norovirus, nucleic acid detection <b>Specimens:</b> 3 simulated samples, 1 mL.	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td> </tr> </table> <b>3</b> <b>Examinations:</b> Norovirus NAT, genogroups GI and GII.	1	2	3	4	5	6	7	8	9	10	11	12			●			●			●			●	
1	2	3	4	5	6	7	8	9	10	11	12															
		●			●			●			●															
<b>5660</b> Parvovirus B19, antibodies <b>Specimens:</b> 3 liquid human plasma or serum samples, 0.4 mL. Authentic commutable samples: each batch originates from a single human donor.	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td> </tr> </table> <b>3</b> <b>Examinations:</b> Parvovirus IgG, IgM, IgG avidity and post-analytical clinical interpretation.	1	2	3	4	5	6	7	8	9	10	11	12			●			●			●			●	EQA <sup>3</sup>
1	2	3	4	5	6	7	8	9	10	11	12															
		●			●			●			●															
<b>5560</b> Puumala virus, antibodies <b>Specimens:</b> 3 liquid human plasma or serum samples, 0.3 mL. Brief case histories are also provided.	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td> </tr> </table> <b>3</b> <b>Examinations:</b> Puumala virus IgG, IgM, POC tests and specific antibodies, IgG avidity and post-analytical clinical interpretation. <b>Notes:</b> For clinical laboratories and POCT sites.	1	2	3	4	5	6	7	8	9	10	11	12			●			●			●			●	POCT EQA <sup>3</sup>
1	2	3	4	5	6	7	8	9	10	11	12															
		●			●			●			●															
<b>5673</b> Respiratory adenovirus, antigen detection <b>Specimens:</b> 3 simulated samples, 1 mL.	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td> </tr> </table> <b>3</b> <b>Examinations:</b> Adenovirus Ag.	1	2	3	4	5	6	7	8	9	10	11	12			●			●			●			●	POCT
1	2	3	4	5	6	7	8	9	10	11	12															
		●			●			●			●															
<b>5098</b> Rotavirus and adenovirus, antigen detection <b>Specimens:</b> 3 artificial faecal samples.	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td> </tr> </table> <b>3</b> <b>Examinations:</b> Rotavirus and adenovirus antigen detection.	1	2	3	4	5	6	7	8	9	10	11	12			●			●			●			●	POCT
1	2	3	4	5	6	7	8	9	10	11	12															
		●			●			●			●															
<b>5672</b> RS virus, antigen detection <b>Specimens:</b> 3 liquid and/or swab samples. <b>Examinations:</b> RSVAg.	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td></td><td>●</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>●</td><td></td> </tr> </table> <b>3</b> <b>Notes:</b> 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		●									●		POCT
1	2	3	4	5	6	7	8	9	10	11	12															
	●									●																
<b>5667</b> Rubella virus, antibodies <b>Specimens:</b> 3 liquid human plasma samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td> </tr> </table> <b>3</b> <b>Examinations:</b> Rubella virus IgG and IgM antibodies, IgG avidity and post-analytical clinical interpretation.	1	2	3	4	5	6	7	8	9	10	11	12	●			●			●			●			EQA <sup>3</sup>
1	2	3	4	5	6	7	8	9	10	11	12															
●			●			●			●																	
<b>5677</b> SARS-CoV-2, antibodies <b>Specimens:</b> 3 liquid human plasma or serum samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td> </tr> </table> <b>3</b> <b>Examinations:</b> SARS-CoV-2 Ab, SARS-CoV-2 IgG, SARS-CoV-2 IgM, SARS-CoV-2 IgA. <b>Notes:</b> For clinical laboratories and POCT sites.	1	2	3	4	5	6	7	8	9	10	11	12	●			●			●			●			POCT
1	2	3	4	5	6	7	8	9	10	11	12															
●			●			●			●																	
<b>5681</b> SARS-CoV-2, antigen detection <b>Specimens:</b> 3 simulated samples. <b>Examinations:</b> SARS-CoV-2 Ag.	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td> </tr> </table> <b>3</b> <b>Notes:</b> For clinical laboratories and POCT sites.	1	2	3	4	5	6	7	8	9	10	11	12	●			●			●			●			POCT
1	2	3	4	5	6	7	8	9	10	11	12															
●			●			●			●																	
<b>5676</b> SARS-CoV-2, nucleic acid detection <b>Specimens:</b> 3 simulated whole genome cDNA samples. <b>Examinations:</b> SARS-CoV-2 NAT.	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td><td>●</td><td></td><td></td> </tr> </table> <b>3</b> <b>Notes:</b> 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
1	2	3	4	5	6	7	8	9	10	11	12															
●			●			●			●																	



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

### 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

### 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

### 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
<b>5100</b> Blood culture (incl. sepsis multiplex methods) <span style="float: right;">1</span>			●		●					●		●
<p><b>Specimens:</b> 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.</p> <p><b>Examinations:</b> Culture, identification, antimicrobial susceptibility testing. Direct nucleic acid detection from positive blood culture bottles by multiplex methods is included in the scheme.</p> <p><b>Notes:</b> Fresh blood is needed but not included in the shipment.</p>												
<b>5101</b> Blood culture, screening (incl. sepsis multiplex methods) <span style="float: right;">1</span>			●		●					●		●
<p><b>Specimens:</b> 3 lyophilized samples. Brief case histories also given. Fresh blood is needed in the specimen preparation.</p> <p><b>Examinations:</b> 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.</p> <p><b>Notes:</b> Fresh blood is needed but not included in the shipment.</p>												
<b>5191</b> Faecal bacterial pathogens multiplex, nucleic acid detection <span style="float: right;">1</span>				●		●				●		●
<p><b>Specimens:</b> 3 samples. Either lyophilized mixtures of bacteria and/or simulated samples, 1 mL.</p> <p><b>Examinations:</b> 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>.</p> <p><b>Notes:</b> During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.</p>												
<b>5472</b> Faecal parasites multiplex, nucleic acid detection <span style="float: right;">1</span>		●			●			●			●	
<p><b>Specimens:</b> 3 lyophilized samples.</p> <p><b>Examinations:</b> Nucleic acid detection of <i>Cryptosporidium</i>, <i>Dientamoeba fragilis</i>, <i>Entamoeba histolytica</i>, <i>Giardia lamblia</i>.</p>												
<b>5304</b> Gastrointestinal viral multiplex, nucleic acid detection <span style="float: right;">1</span>					●						●	
<p><b>Specimens:</b> 3 simulated samples, 1 mL.</p> <p><b>Examinations:</b> Direct multiplex nucleic acid detection. Pathogens included are: Adenovirus, Astrovirus, Norovirus, Rotavirus, Sapovirus.</p> <p><b>Notes:</b> During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.</p>												
<b>5303</b> Meningitis-encephalitis multiplex, nucleic acid detection <span style="float: right;">1</span>		●			●				●		●	
<p><b>Specimens:</b> 3 simulated samples, 1 mL.</p> <p><b>Examinations:</b> 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), Varizella zoster virus (VZV) <i>Cryptococcus neoformans</i> and <i>Cryptococcus gattii</i>.</p> <p><b>Notes:</b> During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.</p>												
<b>5300</b> Respiratory infections multiplex, nucleic acid detection <span style="float: right;">1</span>		●			●				●			●
<p><b>Specimens:</b> 4 simulated samples, 1 mL.</p> <p><b>Examinations:</b> Direct multiplex nucleic acid detection. Pathogens included are adenovirus, bocavirus, <i>B. parapertussis</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>.</p> <p><b>Notes:</b> During the period of one calendar year, a comprehensive selection of listed pathogens will be covered. The samples contain hDNA.</p>												
<b>5302</b> Sexually transmitted diseases multiplex, nucleic acid detection <span style="float: right;">1</span>			●		●			●			●	
<p><b>Specimens:</b> 4 simulated swab/urine samples, 2 mL.</p> <p><b>Examinations:</b> 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>.</p> <p><b>Notes:</b> During the period of one calendar year, a comprehensive selection of listed pathogens will be covered. The samples contain hDNA.</p>												

# 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

<b>7806</b> Preanalytics and process in anatomic pathology	5											

**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

<b>6701</b> Gynaecological cytology (liquid based), virtual microscopy	5											

**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.

<b>6700</b> Gynaecological cytology (smear), virtual microscopy	5											

**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.

<b>6542</b> Histopathology, virtual microscopy	5											

**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.

<b>6702</b> Non-gynaecological cytology, virtual microscopy	5											

**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

<b>6543</b> Histological staining techniques	1											

**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.

<b>6600, 6600S</b> Immunohistochemical staining methods	1											

**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.

<b>8817</b> HIL-index [DEKS]												
	<p><b>Specimens:</b> 2 samples, 1 mL each.</p> <p><b>Examinations:</b> Selected components are asked to be analysed. One of the samples is haemolysed, icteric or lipemic.</p>											

<b>7806</b> Preanalytics and process in anatomic pathology												
	<p><b>Specimens:</b> 3-5 cases with preanalytical and process error(s).</p> <p><b>Examinations:</b> Participants are asked to find preanalytical or laboratory process error(s) in the cases.</p> <p><b>Notes:</b> The scheme is intended for all laboratory staff of pathology laboratories. Scheme is carried out online.</p>											

<b>7800</b> Preanalytics, clinical chemistry												
	<p><b>Specimens:</b> 3 cases with preanalytical error(s).</p> <p><b>Examinations:</b> Participants are asked to find preanalytical error(s) in the cases.</p> <p><b>Notes:</b> The scheme is intended for personnel using POCT tests and devices. Scheme is carried out online.</p>											

<b>7802</b> Preanalytics, microbiology												
	<p><b>Specimens:</b> 3 cases with preanalytical error(s).</p> <p><b>Examinations:</b> Participants are asked to find preanalytical error(s) in the cases.</p> <p><b>Notes:</b> The scheme is intended for all laboratory staff of clinical microbiology laboratories. Scheme is carried out online.</p>											

<b>7807</b> Preanalytics, Pneumatic Sample Transport												
	<p><b>Specimens:</b> Two surrogate blood vials (i.e. measurement devices for recording 3-axis acceleration during pneumatic tube system transport (PTS)).</p> <p><b>Examinations:</b> 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 anayte-specific hemolysis cutoffs, and a hemolysis model.</p> <p><b>Notes:</b> 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>											

<b>7804</b> Preanalytics, POCT in chemistry												
	<p><b>Specimens:</b> 3 cases with preanalytical error(s).</p> <p><b>Examinations:</b> Participants are asked to find preanalytical error(s) in the cases.</p> <p><b>Notes:</b> The scheme is intended for personnel using POCT tests and devices. Scheme is carried out online.</p>											

<b>7801</b> Preanalytics, urine and blood sample collection												
	<p><b>Specimens:</b> 3 cases with preanalytical error(s).</p> <p><b>Examinations:</b> Participants are asked to find preanalytical error(s) in the cases.</p> <p><b>Notes:</b> The scheme is intended for personnel performing blood and urine sample collection. Scheme is carried out online.</p>											

POCT

POCT

# Others

## Others » Andrology

	1	2	3	4	5	6	7	8	9	10	11	12
<b>6400</b> 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
<b>7130</b> 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
<b>3865</b> DNA single nucleotide variation [EQUALIS]												

**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.

Two rounds per year

	1	2	3	4	5	6	7	8	9	10	11	12
<b>8850</b> DNA sequencing (EQUALIS)												

**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.

One round per year

## Others » Laboratory instruments

	1	2	3	4	5	6	7	8	9	10	11	12
<b>8814</b> ELISA reader photometry control [DEKS]												

**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.

One round per year

	1	2	3	4	5	6	7	8	9	10	11	12
<b>8205</b> 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]
- 7800 Preanalytics, clinical chemistry
- 7802 Preanalytics, microbiology
- 7806 Preanalytics and process in anatomic pathology
- 7807 Preanalytics, Pneumatic sample transport
- 7804 Preanalytics, POCT in chemistry
- 7801 Preanalytics, urine and blood sample collection

### Integrated EQA programs

#### Clinical chemistry

- 2570, 2580, 2590 Glucose meters
- 2114 Haemoglobin, 1-level, POCT
- 2300, 2300S Hormones A: Basic analytes of hormone and immunochemistry
- 2301, 2301S Hormones B: Steroid and peptide hormones
- 2200 Lipids and lipoproteins
- 2240 Proteins, electrophoresis
- 2050 Serum B and C (2-level)
- 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 *Bordetella pertussis*, antibodies
- 5960 *Borrelia burgdorferi*, antibodies, European origin
- 5620 *Chlamydia pneumoniae*, antibodies
- 5650 Cytomegalovirus, antibodies
- 5635 Dengue virus, antibodies and antigen detection
- 5641 EBV mononucleosis, specific antibodies
- 5080 General Bacteriology 1 (aerobes and anaerobes)
- 5081 General Bacteriology 2 (aerobes)
- 5860 *Helicobacter pylori*, antibodies
- 5092 Hepatitis A, antibodies
- 5094–5096 Hepatitis B and C, serology
- 5682 Hepatitis E, antibodies
- 5091 HIV, antibodies and antigen detection
- 5089 Human T-cell lymphotropic virus, antibodies
- 5668 Measles virus, antibodies
- 5669 Mumps virus, antibodies
- 5980 *Mycoplasma pneumoniae*, antibodies
- 5660 Parvovirus B19, antibodies
- 5560 Puumala virus, antibodies
- 5667 Rubella virus, antibodies
- 5880 Syphilis serology
- 5099 Tick-borne encephalitis virus, antibodies
- 5420 Toxoplasma, antibodies
- 5060 Urine culture, quantitative screening
- 5065 Urine culture, quantitative screening, identification and susceptibility
- 5665 Varicella-zoster virus, antibodies
- 5636 Zika virus, antibodies



# Alphabetical scheme directory

- A**
- ABO and Rh grouping, **16**
  - Acid-base status and electrolytes, **10**
  - ACTH and Cortisol, **9**
  - Activated partial thromboplastin time, INR and fibrinogen, **17**
  - Albumin and creatinine in urine, **13**
  - Alcohol biomarkers in urine [EQUALIS], **13**
  - Alcohol in whole blood:
    - Ethanol + methanol + isopropanol, **10**
  - Alcohol in whole blood: Ethylene glycol, **10**
  - Alcohol in serum: Ethanol + methanol + isopropanol + acetone, **10**
  - Alcohol in serum: Ethylene glycol, **10**
  - Allergen component [UK NEQAS], **6**
  - Allergy in vitro diagnostics [SKML], **6**
  - Allergy in vitro diagnostics [UK NEQAS], **6**
  - Ammonium ion, **10**
  - ANCA and GbmAb, **20**
  - Angiotensin convertase (ACE), **10**
  - Antibody screening and compatibility testing, **16**
  - Anticoagulants: LMW-Heparin/antiFXa, **17**
  - Antiglobulin test, direct, **16**
  - Anti-Müllerian hormone, **13**
  - Antinuclear antibodies, **20**
  - Antistreptolysin, **21**
  - Autoimmune diagnostics, IFA interpretation, **20**
  - Autoimmune liver disease and gastric parietal cell antibodies, **20**
- B**
- Bacteriological staining, direct, **22**
  - Basic blood count, 1-level sample, **16**
  - Basic blood count, 2-level sample, **16**
  - Basic chemistry, POCT analyzers, **6**
  - Bile acids, **10**
  - Bilirubin, conjugated, **10**
  - Bilirubin, neonatal, **10**
  - Blood culture, **22, 31**
  - Blood culture, screening, **22, 31**
  - Bordetella pertussis*, antibodies, **21**
  - Borrelia burgdorferi*, antibodies, European origin, **21**
- C**
- Cerebrospinal fluid, bacterial culture, **22**
  - Chemokine CXCL13, **21**
  - Chlamydia pneumoniae*, antibodies, **21**
  - Chlamydia trachomatis* and *Neisseria gonorrhoeae*, nucleic acid detection, **22**
  - Clostridioides difficile*, culture and toxin detection, **22**
  - Clostridioides difficile*, nucleic acid detection, **22**
  - CMV and EBV, nucleic acid detection, quantitative, **26**
  - Coeliac disease, antibodies, **20**
  - Column agglutination methods: grading of reactions and patient cases, **16**
  - C-reactive protein (CRP) for analyzers, **12**
  - C-reactive protein (CRP), POCT, **12**
  - CRP, low concentration, **7**
  - Cystatin C [DEKS], **10**
  - Cytomegalovirus, antibodies, **27**
- D**
- DayTrol, human serum, **9**
  - D-dimer, **17**
  - D-dimer, extra set of samples, **17**
  - Decialotransferrin [EQUALIS], **12**
  - Dengue virus, antibodies and antigen detection, **27**
  - DNA analysis [EQUALIS], **34**
  - DNA sequencing [EQUALIS], **34**
  - Drug of abuse screening in urine, **13**
- E**
- EBV mononucleosis, POCT, **27**
  - EBV mononucleosis, specific antibodies, **27**
  - ECG, interpretation, **34**
  - ELISA reader photometry control [DEKS], **34**
  - Eosinophil cationic protein, **6**
  - Erythrocyte sedimentation rate, **6**
  - Erythrocyte sedimentation rate:
    - Alifax-analyzers; Greiner tube, **7**
    - Erythrocyte sedimentation rate:
      - Alifax-analyzers; Sarstedt tube, **7**
- F**
- Faecal bacterial pathogens multiplex, nucleic acid detection, **22, 31**
  - Faecal calprotectin, **12**
  - Faecal culture, **23**
  - Faecal elastase, **11**
  - Faecal occult blood, qualitative, **7**
  - Faecal occult blood, quantitative, **7**
  - Faecal parasites multiplex, nucleic acid detection, **25, 31**
  - Flagger program (Noklus), **15**
  - Francisella tularensis, antibodies, **21**
  - Fungal culture, **25**
  - Fungal infections, nucleic acid detection, **25**
- G**
- Gastric biomarkers, **11**
  - Gastrointestinal viral multiplex, nucleic acid detection, **31**
  - General Bacteriology 1 (aerobes and anaerobes), **23**
  - General Bacteriology 2 (aerobes), **23**
  - Glucose meters, **8**



# Alphabetical scheme directory

Gram stain, blood culture, **23**

Gram stain, colonies, **23**

Gynaecological cytology (liquid based), virtual microscopy, **32**

Gynaecological cytology (smear), virtual microscopy, **32**

## H

5-hydroxyindoleacetic Acid (5-HIAA), **12**

Haemoglobin A1c, liquid samples, **8**

Haemoglobin A1c, liquid samples, POCT, **8**

Haemoglobin, 1-level HemoCue 801 and HemoCue 301, **7**

Haemoglobin, 1-level, POCT, **7**

Haemoglobin, 3-level samples, cell counters and analyzers, **7**

Haemoglobin, 3-level samples, POCT, **7**

Haemoxymeters, **11**

*Helicobacter pylori*, antibodies, **21**

*Helicobacter pylori*, antigen detection in faeces, **23**

*Helicobacter pylori*, nucleic acid detection, **23**

Hepatitis A, antibodies, **27**

Hepatitis B and C, serology, specimen volume 0.6 mL / 1.2 mL / 2.0 mL, **27**

Hepatitis B, s-antigen antibodies, quantitative, **27**

Hepatitis B virus, nucleic acid detection (DNA), **27**

Hepatitis C virus, nucleic acid detection (RNA), **27**

Hepatitis E, antibodies, **27**

Herpes simplex 1 and 2, antibodies, **27**

HIL-index [DEKS], **33**

Histological staining techniques, **32**

Histopathology, virtual microscopy, **32**

HIV-1, nucleic acid detection (RNA), **28**

HIV, antibodies and antigen detection, **28**

HIV, antibodies and antigen detection, extra set of samples, **28**

HIV, antibodies and antigen detection, POCT, **28**

Homocysteine [DEKS], **11**

Hormones A: Basic analytes of hormone and immunochemistry, **8**

Hormones B: Steroid and peptide hormones, **9**

HSV1&2/VZV/T. *pallidum*, nucleic acid detection, **28**

Human papillomavirus, nucleic acid detection, **28**

Human T-cell lymphotropic virus, antibodies, **28**

## I

Interferon Gamma Release Assay (IGRA) for *Mycobacterium tuberculosis*, **20**

Immunohistochemical staining methods, **32**

Influenza virus A+B and RS virus, nucleic acid detection, **28**

Influenza virus A+B, antigen detection, **28**

INR, CoaguChek, i-STAT and Siemens Xprecia, POCT, **17**

INR, EuroLyzer, POCT, **18**

INR, LabPad, POCT, **18**

INR, MicroINR, LumiraDX and CoagSense, POCT, **18**

Interleukin-6, **12**

Iohexol [EQUALIS], **11**

## K

Ketones (beta-hydroxybutyrate), POCT, **8**

## L

Legionella, antigen detection in urine, **23**

Leucocyte differential count and evaluation of blood cell morphology, virtual microscopy, **16**

Leucocyte differential count, 3-part, automated, **17**

Leucocyte differential count, 5-part, automated, **17**

Lipids and lipoproteins, **12**

Lipoprotein a, **12**

## M

Malaria, antigen and nucleic acid detection, **25**

Malaria screening, Giemsa stain, **26**

Malaria screening, MGG stain, **26**

Maternal serum screening, **13**

Measles virus, antibodies, **28**

Meningitis-encephalitis multiplex, nucleic acid detection, **31**

Methyl malonate [DEKS], **11**

Mpox (Monkeypox virus), nucleic acid detection, **29**

Multiple Respiratory Virus nucleic acid detection, **28**

Mumps virus, antibodies, **28**

Mycobacterial culture and stain, **23**

Mycobacterial nucleic acid detection, **24**

Mycobacterial stain, **24**

*Mycobacterium tuberculosis*, drug resistance, nucleic acid detection **23**

*Mycobacterium tuberculosis*, drug resistance, nucleic acid detection, extra set of samples, **23**

*Mycoplasma genitalium*, drug resistance, nucleic acid detection, **23**

*Mycoplasma pneumoniae*, antibodies, **21**

Myocardial markers, **7**

Myocardial markers and CRP, low concentration, **8**

## N

Nasal swab cells, **11**

Natriuretic peptides 1, B-type, NT-ProBNP, **8**

Natriuretic peptides 2, B-type, BNP, **8**

*Neisseria gonorrhoeae* (Gc), culture and susceptibility testing, **24**

Non-gynaecological cytology, virtual microscopy, **32**

Norovirus, nucleic acid detection, **29**

# Alphabetical scheme directory

## P

Parasites in blood, Giemsa stain, **26**  
Parasites in blood, Giemsa stain, virtual microscopy, **26**  
Parasites in blood, MGG stain, **26**  
Parasites in blood, MGG stain, virtual microscopy, **26**  
Parasites in faeces, **26**  
Parasites in faeces, virtual microscopy, **26**  
Parathyroid hormone, intact, **9**  
Parvovirus B19, antibodies, **29**  
Percentiler program (Noklus), **15**  
Phosphatidyl ethanol in blood [EQUALIS], **11**  
Phospholipid antibodies, **20**  
Pipette control, **34**  
Preanalytics and process in anatomic pathology, **32, 33**  
Preanalytics, clinical chemistry, **33**  
Preanalytics, microbiology, **33**  
Preanalytics, Pneumatic Sample Transport, **33**  
Preanalytics, POCT in chemistry, **33**  
Preanalytics, urine and blood sample collection, **33**  
Pregnancy test, **14**  
Procalcitonin, **12**  
Prostate specific antigen, **13**  
Proteins in cerebrospinal fluid, **12**  
Proteins, electrophoresis, **13**  
Proteins, immunochemical determinations, **13**  
Prothrombin time, **18**  
Puumala virus, antibodies, **29**

## Q

Quantification of ABO antibodies [EQUALIS], **16**

## R

Respiratory adenovirus, antigen detection, **29**  
Respiratory infections multiplex, nucleic acid detection, **31**  
Reticulocyte count, automated, **17**  
Reticulocyte count, manual methods, **17**  
Rheumatoid factor and citrullin peptide antibodies, **20**  
Rotavirus and adenovirus, antigen detection, **29**  
RS virus, antigen detection, **29**  
Rubella virus, antibodies, **29**

## S

Salivary cortisol, **9**  
Salmonella, culture, **24**  
SARS-CoV-2, antibodies, **29**  
SARS-CoV-2, antigen detection, **29**  
SARS-CoV-2, nucleic acid detection, **29**  
Semen analysis, **34**  
Serum A, lyophilized samples, **9**  
Serum B and C (2-level), **9**

Sexually transmitted diseases multiplex, nucleic acid detection, **31**  
Special coagulation, **18**  
Sputum cells, **11**  
*Streptococcus agalactiae* (GBS), nucleic acid detection, **24**  
*Streptococcus agalactiae* (GBS), culture, **24**  
*Streptococcus pneumoniae*, antigen detection in urine, **24**  
*Streptococcus pyogenes* (Group A), antigen detection in pharyngeal sample, **24**  
*Streptococcus pyogenes* (Group A), nucleic acid detection in pharyngeal sample, **24**  
Surveillance for multidrug resistant bacteria, gramnegative rods, **25**  
Surveillance for multidrug resistant bacteria, MRSA, **25**  
Surveillance for multidrug resistant bacteria, VRE, **25**  
Synovial fluid crystals, **11**  
Syphilis serology, **21**

## T

Therapeutic drugs, **11**  
Throat streptococcal culture, **25**  
Thyroid gland antibodies, **20**  
Tick-borne encephalitis virus, antibodies, **30**  
Titration of erythrocyte antibodies [EQUALIS], **16**  
Toxoplasma, antibodies, **26**  
*Trichomonas vaginalis*, detection, **26**  
Troponin I and Troponin T, detection, POCT, **8**  
Tryptase [UK NEQAS], **6**  
TSH receptor antibodies, **20**  
Tumour markers, **13**

## U

Urine bacterial screening with automated analyzers, **14**  
Urine culture, quantitative screening, **25**  
Urine culture, quantitative screening, identification and susceptibility, **25**  
Urine, identification of cells and other particles, **13**  
Urine quantitative chemistry, **14**  
Urine strip test A, **14**  
Urine strip test B, particle count and estimation of density, **14**

## V

Varicella-zoster virus, antibodies, **30**  
Vitamin A, E and D metabolites, **11**

## W

White blood cell count, HemoCue, POCT, **17**  
White blood cell differential count: HemoCue, POCT, **17**

## Z

Zika virus, antibodies, **30**



# LABQUALITY

## Sales and customer service

TEL. +358 9 8566 8200 | INFO@LABQUALITY.FI  
WWW.LABQUALITY.COM  
KUMPULANTIE 15, FI-00520 HELSINKI, FINLAND  
VAT FI01100791