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Lyon Center for the **Pro**motion of **Bio**logy and **Qual**ity Control

Member of EQALM and **FAEEQ**

**A-R01-PBQ-ENR-093-01**
Lyon, September 8th 2025

Association Law 1901 registered at the Rhône Prefecture with number W691066392

# EXTERNAL QUALITY ASSESSMENT SCHEMES (EQAS) FOR MEDICAL BIOLOGY LABORATORIES

# 2026 Brochure

## ⚠ REGISTRATION ONLINE USING OUR WEBSITE

If you have difficulties when registering, please contact us or use the registration form enclosed, following all the instructions.

Deadline: Thursday October 9th 2025
After Thursday October 9th 2025, registration can't be guaranteed (limited availability)

- All information is available on our website: https://www.probioqual.com
- **Email:** secretariat@probioqual.com
- **Call us from Monday to Friday, 8.30 am to 5.30 pm - Paris time (CET)**

*Dear Colleagues,*

*You will find attached our 2026 brochure. As you know, ProBioQual association is continuously committed to improving the services it offers to the medical biology laboratories. The major developments in our EQA (External Quality Assessment) schemes for 2026 will be presented below :*

- *First, our **new database** will allow to organize the different analytical sites belonging to the same medical laboratory group (LBM) as defined by French law, including people involved in EQA of each site, analyzers used, and the tests realized on each of them. This system will be operational for the 2026 schemes.*

- *We continue to adapt our schemes (number of surveys, number of samples, new analytes, etc.) to meet your requests, while ensuring the quality of our schemes maintained. We try to take into account the evolution of French medical laboratories and their ISO 15189 accreditation.*

- *Since mid-2025, we have proposed, free of charge, a **multi-analyzer comparison** either single-site or multi-site for medical laboratories participating in our EQA schemes, who request it and fulfill the required conditions. If you are interested, please contact our office at secretariat@probioqual.com.*

- *We continue to offer the direct transmission of your EQA results from your LIS (Laboratory Information System) to the ProBioQual database via **HPRIM**, but also via **HL7** and the **CDA** standard recommended by the French Digital Health Agency (ANS). This transmission is currently possible via HPRIM Santé and Apicrypt, and from January 2026 via **MSSANTE** (similar to the structured results of patient records in France).*

*Finally, perhaps the most important for you, we have limited the financial impact on our EQAS by not increasing the price of the majority of our EQA schemes for 2026. However, for few schemes, we have to apply an increase due to higher prices charged by our suppliers (control products, transport, etc.).*

*We hope you will continue to work with us in 2026.*

*Best regards,*

***Régine CARTIER and Bernard POGGI***

# QUALITY CONTROL AND ACCREDITATION ASSISTANCE

As a pioneer in the field of quality control for laboratory tests, ProBioQual has been offering external quality control schemes for over 50 years, allowing medical laboratories to fulfill the requirements of ISO 15189.

We offer more than 370 laboratory tests covering biochemistry, immunology, pharmacology - toxicology, haematology, haemostasis, serology, bacteriology and semen analysis:

- **67 external quality assessment (EQA) schemes (45 are accredited)**
- **2 Staff accreditation assistance (HABI) schemes**

**The detailed alphabetical list of analytes monitored in our 2026 schemes is available on our website, on the homepage and under the 'EQA' tab / 'List of analytes' / 'List of monitored analytes'.**

## Our strengths:

- **ISO 17043 ACCREDITATION:** 45 accredited EQA schemes in the brochure, identified with the letter

**A** = Accréditation **N° 1-5587** Portée disponible sur www.cofrac.fr

- **EXPERIENCE & EXPERTISE:** More than 30 medical laboratory biologists, both volunteers or employees, who are experts in their fields, validate, interpret and comment on statistical reports. They are available to answer any questions you may have,
- **INDEPENDENCE:** ProBioQual has no commercial strategy and acts independently of any industrial societies or financial groups in the field of laboratory medicine,
- **PEER GROUPS:** In 2025, more than 1 329 analytical sites took part in our schemes,
- **RAPIDITY & REACTIVITY:** EQA statistical reports are sent by email within 2 weeks of the entry deadline,
- **ISO 9001 CERTIFICATION,**
- **Your EQA results can be sent directly and at no extra cost via HPRIM/ HL7/MSSANTE/CDA** (see page 5).

# HOW THE SCHEMES WORK

**Our detailed process can be found on our website** https://www.probioqual.com

## EQA - EXTERNAL QUALITY ASSESSMENT

The registration for control scheme is a complete package including:

- Registration certificate sent at the beginning of the scheme,
- Specific technical note to each EQA, giving all the necessary information for carrying out EQAs in addition to the general instructions applicable to all our schemes,
- Control materials samples (in one or more deliveries) and digital tools,
- Statistical processing with personalised assessment of your results: grade, z-score, histogram position, bias calculation, charts showing z-scores, grades and uncertainty measurement (long-term coefficient of variation and long-term bias),
- Interpretation and commentary by expert laboratory biologists. Annotated, personalised statistical EQA reports are sent to registered participants by email within 2 weeks of the entry deadline,
- The report comprises the annual summary of grades, z-scores and bias per analyte and the individual uncertainty measurement report,
- Participation certificate sent at the end of the scheme.

Unless otherwise indicated, the **registration** to one EQA scheme includes the assessment of **two analytical systems** (or two techniques) present on **a same geographical medical laboratory site**.

## DIRECT REMOTE TRANSMISSION OF RESULTS USING HPRIM/HL7/MSSANTE/CDA

### Saving time, avoiding data entry errors

**The automatic transmission of EEQ** results in **HPRIM or HL7** format is possible for most **analytes with quantitative results**.
⚠️ This option does not apply to **qualitative** results *(e.g., serology, bacteriology, toxic substance identification, etc.).*

This service is **free** of charge, provided that your laboratory can transmit files via one of the following platforms:

- **MSSanté** – New feature
- **Bioserveur**
- **Apicrypt**

Exceptionally, files may also be sent **via unencrypted email.**

The HPRIM/HL7 formats **do not allow the encoding of techniques or devices used.** It is therefore the responsibility of the laboratory **to check the codes associated** with their results upon receipt of the data entry acknowledgment, and to correct them, if necessary, via the website member area.

For more information, **please contact us by email** (secretariat@probioqual.com) to ask for our full procedure.

## REQUIRED I.T PREREQUISITES FOR SCHEMES USING VIRTUAL TOOLS

- ✓ Core i5 or equivalent, 4 GB RAM,
- ✓ Browser: Internet Explorer 10 or 11, Firefox, Chrome, Edge,
- ✓ Resolution: 1400 x 900 minimum, 1920 x 1080 optimal,
- ✓ **Minimum speed for optimal image scrolling: 8 Mbps (check using https://testdebit.info).**

**List of the following virtual platform schemes concerned by I.T prerequisites:**

- Blood cytology on digital slides (CYTO) see page 20,
- CSF cytology on digital slides (CLCR) see page 20,
- Semen analysis (SPE) see page 24,
- Staff accreditation assistance (HCLCR, HCHF) see page 26.

# IMPROVEMENT AND MODIFICATION OF SCHEMES

**We would like to draw your attention to the following points regarding our schemes:**

*Serum Biochemistry scheme* ***(CQH):*** following requests from our participants, we have reduced the number of surveys from 35 to 22 annual surveys. We will maintain this format in 2026. This scheme includes neonatal bilirubin.

*Serum Protein Electrophoresis and Monoclonal Immunoglobulin Typing scheme* ***(EPS):*** this scheme includes the evaluation of monoclonal immunoglobulin typing.

*Heamoglobin Electrophoresis scheme* ***(ELHB):*** samples are accompanied by clinical context, allowing you to provide a general conclusion.

***Schemes Modifications for 2026:***

*Serum Biochemistry scheme* ***(CQH):*** we will propose an evaluation of free bilirubin results.

*Serum Protein Electrophoresis and Monoclonal Immunoglobulin Typing scheme* ***(EPS):*** quantification of the monoclonal peak can be reported in % and g/L.

*Blood Gas with Electrolytes scheme* ***(GDS):*** in 2026, the scheme will include an evaluation of creatinine results.

*CO-Oxymetry scheme* ***(COOX):*** lyophilized samples have been removed. We will provide profiles with significant methaemoglobin and carboxyhaemoglobin levels.

*Cerebrospinal Fluid Biochemistry scheme* ***(LCR):*** only 3 laboratories returned protein electrophoresis results on CSF in 2025, therefore, this test will not be offered in 2026.

*Urine Biochemistry scheme* ***(CMU):*** in order to follow recommended practice trends, in 2026 we are adding the evaluation of Albumin/Creatinine and Protein/Creatinine ratios.

*Glomerular Filtration Rate (GFR) and Chronic Kidney Disease (CKD) Evaluation scheme* ***(CLAI)*****:** in 2026, this scheme will include urinary albumin measurement, Albumin/Creatinine ratio, and the KFRE (Kidney Failure Risk Equation). The Cockcroft calculation is delated.

*Medicines scheme* ***(CMED):*** in 2026, we are adding control of two medecines: lamotrigine and levetiracetam.

*Blood Count (stabilised blood) scheme* ***(NUM):*** we will add control of the NRBC channel. However, we do not guarantee the completeness of the concentration ranges covered in 2026 for the NRBC channel.

*Complete blood count with Reticulocyte Count, Fresh Blood* ***(NFR):*** we are adding control of erythroblasts and myelemia. For erythroblasts and myelemia, 2026 is a pilot year; we are currently unable to guarantee the full range of values.

*Biological preeclampsia markers scheme* ***(PREE)****:* we offer the entry of **preeclampsia risk assessment results during the pregnancy first-trimester** using the specific risk calculation software provided by Thermo-Fisher, Perkin-Elmer, and Roche, based on the supplied demographic data and the measured PIGF result.

# NEW FOR 2026

**LAUNCH OF THE NEW MEMBER PLATFORM AND THE NEW DATABASE: JANUARY 2026**

Initially scheduled for the beginning of 2025, the launch has been postponed to ensure the quality, stability, and security of this new digital environment.
The new digital environment will be used in 2026.

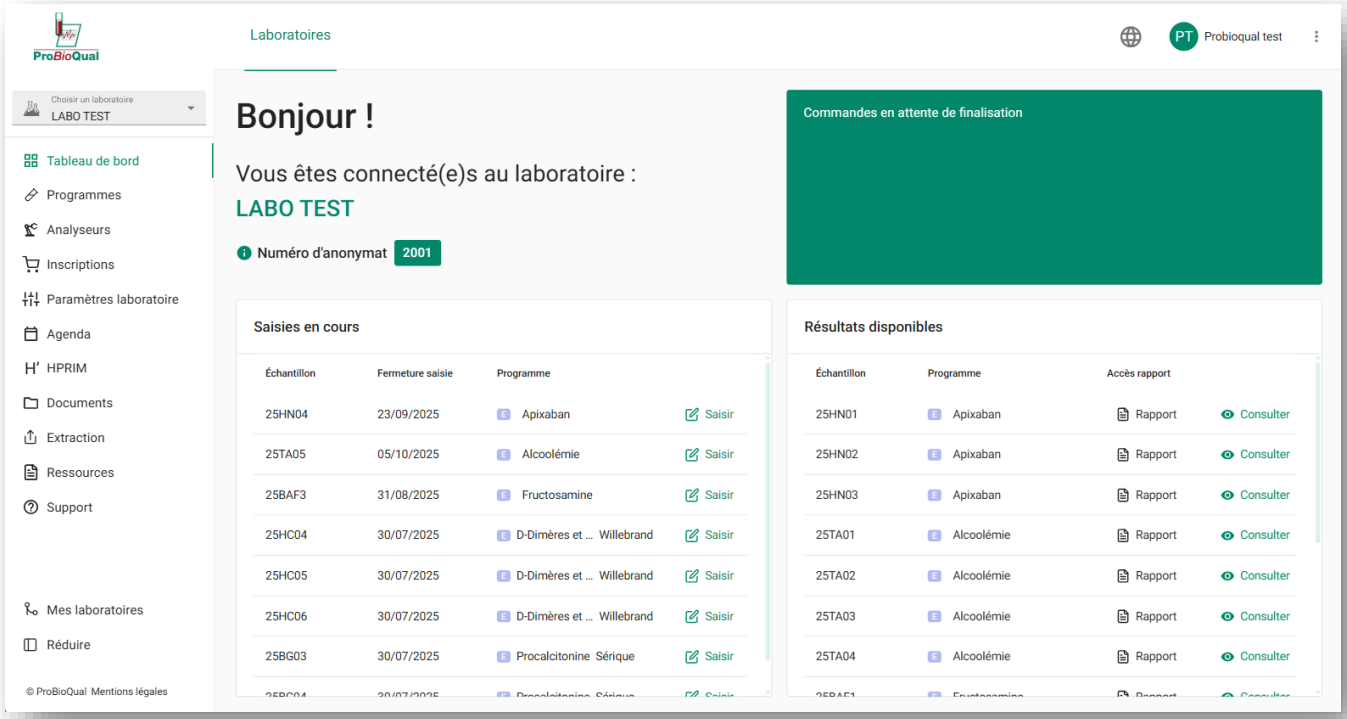
This project, the result of several years of work, includes a complete overhaul of our database and internal tools.
It introduces several improvements intended to make data entry and navigation easier for you on a daily basis:

• **Modernized interface**: a fully redesigned layout that is clearer and more intuitive.
• **Enhanced security**: a personal account for each user and an invitation system to join one or more laboratory sites.
• **Analyzer organisation of an analytical site of a medical biology laboratory (MBL)**: the ability to describe your analyzers (analytes, techniques) and link them to specific data entries.
• **Dynamic entry forms**: adapted to the specific features of EQA schemes (e.g., thresholds in serology, microbiology, toxicology, etc.).

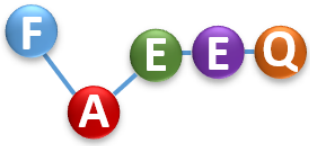
We've also ensured **the preservation of your entire history**: results, grades, documents, technical data, and more.

**A specific communication will inform the laboratories registered in 2026** of the online publication procedures in due course.

Here is an exclusive preview of your future environment:



# FAEEQ – FEDERATION OF EQA ASSOCIATIONS




**F**édération des **A**ssociations
d'**E**valuation **E**xterne de la **Q**ualité

*Association in accordance with the French Law of 1 July 1901 - registered at the Rhône Prefecture with No. W691080967 - OJ of 12 May 2012*

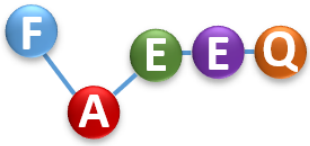
The six non-profit non-governmental associations (registered in accordance with the French Law of 1 July 1901) who make up FAEEQ (French Federation of EQA Associations), namely Asqualab, Association de Biologie Praticienne, Biologie Prospective, CTCB, GBMHM and ProBioQual, have decided to offer their clients a list of EQAs provided under the FAEEQ umbrella.

If you would like the list of these EQAs and associated information, please go to https://www.faeeq.fr.

| EQA name | Managed by |
|---|---|
| Specialized antibiotics: *scheme* ABC: External Quality Assessment (EQA) – Beta-lactams and Carbapenems | ASQUALAB<br>+33 (0)1 45 40 35 75<br>asqualab@wanadoo.fr<br>https://www.asqualab.com |
| Specialized antibiotics: *scheme* ABL: External Quality Assessment (EQA) – Specialized antibiotics (Cefazolin, Cefoxitin, Ceftriaxone, Ciprofloxacin, Clindamycin, Dalbavancin, Daptomycin, Ethambutol, Isoniazid [INH], Linezolid, Moxifloxacin, Ofloxacin, Oxacillin, Pyrazinamide, Rifabutin, Rifampicin, Sulfamethoxazole, Temocillin, Trimethoprim) | |
| Antifungals | |
| Antivirals / Antiretrovirals | |
| Crystalluria | |
| Cytostatics – Tyrosine kinase inhibitors | |
| Cytostatics – Others (5-fluorouracil, Etoposide, Platinum compounds) | |
| Neonatal screening (metabolites and hormone analysis) | |
| Dépistage néonatal (métabolites et hormonologie) | |
| Neonatal screening (Hemoglobin S detection) | |
| Neonatal screening for SMA (Spinal Muscular Atrophy) and SCID (Severe Combined Immunodeficiency) | |
| EQA Lithiasis: Urinary stones – Stone powders | |
| EQA Lithiasis: Urinary stones – Infrared spectra | |
| EQA Lithiasis: Urinary stone analysis – Urinary measurement | |
| Proteinuria analysis | |
| G6PD | |
| Fetal RhD genotyping | |
| Hydroxychloroquine, chloroquine, and metabolites (blood and serum) | |
| Immunosuppressants in blood | |
| Anti-RH1 antibody microtitration | |
| Kleihauer test | |
| Sweat tests | |
| Erythrocyte antibody titration | |
| Uracilemia | |
| Vitamins and biofactors in blood | |
| Vitamins and biofactors in serum | |

**For more information on these EQA schemes, please contact the managing Associations directly and register with them.**

# FAEEQ – FEDERATION OF EQA ASSOCIATIONS




Fédération des Associations
d'Evaluation Externe de la Qualité

*Association in accordance with the French Law of 1 July 1901 - registered at the Rhône Prefecture with No. W691080967 - OJ of 12 May 2012*

| EQA name | Managed by |
|---|---|
| ADAMTS13 | BIOLOGIE PROSPECTIVE<br>+33 (0)3 83 44 51 41<br>contact@biologie-prospective.org<br>https://www.biologie-prospective.org |
| Anti-PLA2R antibodies | |
| Anti-acetylcholine receptor antibodies and anti-striated muscle antibodies | |
| 16S rRNA: molecular biology | |
| Aspergillosis: molecular biology | |
| Babesiosis: molecular biology | |
| General bacteriology: direct examination | |
| Urine dipstick | |
| Bartonellosis: molecular biology | |
| Lyme borreliosis: molecular biology | |
| Brucellosis: molecular biology | |
| Fecal calprotectin and elastase | |
| Campylobacter: antibodies | |
| Candidiasis: molecular biology | |
| Candida auris: molecular biology | |
| Candidiasis: antibodies | |
| Carbapenems: molecular biology | |
| CDT | |
| Post-vasectomy check | |
| Functional stool analysis: fecalogram | |
| Cryoglobulins | |
| Cytology of biological fluids (excluding CSF) | |
| Lymph node cytology | |
| Dermatophytes: molecular biology | |
| Erythroblasts | |
| Glycopeptides: molecular biology | |
| Immature granulocytes | |
| Influenza and RSV: antigen | |
| Urinary hCG | |
| Helicobacter pylori: antibiotic susceptibility testing | |
| Helicobacter pylori: antibodies | |
| Helicobacter pylori: molecular biology (stool) | |
| Helicobacter pylori: antigen (stool) | |
| Blood culture | |
| Hematologic disorders: flow cytometry | |
| Remote hemostasis: ACT on whole blood | |
| Remote hemostasis: INR on whole blood | |
| Leptospirosis: molecular biology | |
| MAR-Test | |
| Mucorales: molecular biology | |
| Mycology (filamentous fungi – yeasts): direct examination | |
| Extended phenotyping | |
| Puumala virus: molecular biology | |
| SARS-CoV-2: antigen | |
| SARS-CoV-2: infectious serology | |
| Hühner test | |
| Tetanus: antibodies | |
| Time-lapse | |
| Toxoplasma gondii: molecular biology | |
| Erythrocyte sedimentation rate or aggregation | |

**For more information on these EQA schemes, please contact the managing Associations directly and register with them.**

# FAEEQ – FEDERATION OF EQA ASSOCIATIONS

Fédération des Associations d'Evaluation Externe de la Qualité

*Association in accordance with the French Law of 1 July 1901 - registered at the Rhône Prefecture with No. W691080967 - OJ of 12 May 2012*

| EQA name | Managed by |
|---|---|
| Allergie | CTCB<br>+33(0)5 34 51 49 80<br>secretariat@ctcb.com<br>https://www.ctcb.com |
| Dengue / Zika / Chikungunya: Molecular Biology | |
| SARS-CoV-2: Molecular Biology | |
| Biotherapy: Adalimumab / Infliximab / Vedolizumab / Ustekinumab / Rituximab / Golimumab / Tocilizumab | |
| HPV screening on cytology smear | |
| Angiotensin-converting enzyme (ACE) | |
| VHC on whole blood: molecular biology | |
| *Clostridium difficile*: GDH, molecular biology | |
| Viral meningitis: molecular biology | |
| Neonatal and adult bacterial meningitis: molecular biology | |
| Bacterial gastroenteritis: molecular biology | |
| *Staphylococcus aureus* (methicillin resistance): molecular biology | |
| *Staphylococcus aureus* (toxins): molecular biology | |
| Seminal plasma (interpretative assessment) | |
| Fecal blood | |
| Vaginal screening for Group B *Streptococcus* | |

| EQA name | Managed by |
|---|---|
| Lymphoid clonality analysis | GBMHM<br>+33 (0)1 42 49 40 28<br>contact-eeq@gbmhm.fr<br>http://www.gbmhm.fr |
| IGHV mutational status analysis | |
| Lymphoid NGS panel | |
| Myeloid NGS panel | |
| BCR::ABL1 transcript quantification by GeneXpert | |
| Major BCR::ABL1 transcript quantification | |
| Minor BCR::ABL1 transcript quantification | |
| NPM1 Type A transcript quantification | |
| BCR::ABL1 TKD mutation screening | |
| Calreticulin mutation screening | |
| TP53 mutation screening | |
| BCR::ABL1 transcript screening | |
| MYD88 L265P mutation detection and quantification | |
| JAK2 V617F mutation detection and quantification | |
| FLT3 ITD duplication detection and quantification | |
| CBFB::MYH11 type A and RUNX1::RUNX1T1 transcript detection and quantification | |

**For more information on these EQA schemes, please contact the managing Associations directly and register with them.**

# LABORATORY MEDICINE CPD

**ProBioQual is a training organisation registered under No. 82 69 04 169 69 with the Auvergne – Rhône Alpes Prefecture.**

**ProBioQual is a recognised training organisation for CPD for healthcare professionals, registered with ANDPC under No. 1747.**

**ProBioQual is registered with Datadock under No. 0050370.**

**ProBioQual has been Qualiopi-certified by AFNOR since 2020.**
**This label confirms the quality of the processes put in place by ProBioQual.**
The quality certification was awarded for the following category: training activities.

In order to fulfill the need for Continuing Professional Development (CPD) and continuing medical training, ProBioQual has offered, since it was founded, **laboratory medicine CPD** for medical laboratory biologists and medical laboratory technicians working for public and private laboratories.

These face to face training events cover all aspects of laboratory medicine and the problems medical laboratory biologists and medical laboratory technicians face in their daily routine (bacteriology, biochemistry, haematology, immunology, virology, quality assurance, IT, instruments/equipment, legislation, etc.).

**In 2026, we are organising 2 days of CPD (subject to validation by the French National CPD Agency) as part of the BIOMED-J conference on 28 and 29 May 2026.**

**We will also offer you recurrent training in laboratory medicine, for example:**

**MANAGING QUALITY CONTROL RESULTS: 1 DAY**

- Introduction to quality control and external quality assessment,
- Analytical objectives for quality control and technical validation,
- Managing quality control in an ISO 15189 accredited laboratory,
- What an EQA can bring to biochemistry and how to make use of it, Case studies.

**UNCERTAINTY MEASUREMENT IN LABORATORY MEDICINE: 1 DAY**

- Principles and definition,
- Presentation of the different methods of evaluating uncertainty measurement,
- Presentation of practical aspects and interpretation.

**TRAINING MANAGERS / CONTACT**

| | |
|---|---|
| **Our laboratory biologists in charge of training** | Pierre-Jean Bondon - Morgane Gossez-Coulaud<br>Laurent Jallades - Jonathan Lopez<br>Chantal Roure-Sobas - Christine Vinciguerra |
| **For any queries relating to registration** | Tel.: +33 (0)4 72 65 34 90<br>Email: formation@probioqual.com |

**See our upcoming training events on our website https://www.probioqual.com**

# REGISTRATION PROCEDURES FOR QUALITY CONTROL SCHEMES

The registration form, general terms and conditions and this brochure are the basis of the contract review.
ProBioQual is a non-profit and non-governmental association (French Law of 1 July 1901), registered with Rhône Prefecture under No. W691066392.
All prices are net of tax (VAT not applicable - Article 261 of the French Tax Code).

By registering for one of our schemes, you accept all the clauses given in this document and in our general terms and conditions (page 27).

⚠ **We recommend to register as soon as possible. We have anticipated enough stock to guarantee registrations until October 9th 2025. After this date, we can no longer guarantee stock availability.**

## 1. Online registration on our website https://www.probioqual.com

**Save time** by registering on our website **with your username and password**. In the member's area, you can access your personalised registration form via the "**Registrations**" menu (*an online registration guide is available*).
You can:

- See past orders (validated orders),
- Create or modify an order (pending orders), save your order in a 'basket' before validating it (you can have several baskets at the same time).

## 2. If you don't succeed in registering online, you can register by postal mail:

- Complete carefully the personalised registration form sent by post,
- **Send back the ORIGINAL form with ALL pages ONLY by post,**
- Include your purchase order or payment,
- **DO NOT FAX, DO NOT PHOTOCOPY.**

## 3. For laboratories not currently registered with ProBioQual:

- Contact our secretary by email: secretariat@probioqual.com

⚠ **Orders are confirmed by email as soon as they are validated by ProBioQual.**
**It is your responsibility to verify that the confirmed order suits with your requirements.**

Participants are not selected. However, for some of our EQA schemes, a maximum number of participants has been set for stock reasons.

Participation takes place in order of registration (the only selection criterion).

Registration is customisable and can include one or more schemes individually (unless otherwise indicated in the scheme documentation). Each laboratory can choose to examine the analytes it needs.

The laboratory code we provide is associated with **a single geographical site**. Reports, certificates of registration and annual summaries are associated with this laboratory code.

**Transferring samples from one geographical site to another is not permitted.** The statistical processing for a second analytical system for the same sample may only be carried out for a single geographical site.

Unless otherwise indicated in the brochure, **registration** on an EQA scheme includes the assessment of **two analytical systems** (or two techniques) at **a same geographical medical laboratory site**.

If you have more than two systems for assessment, you must proceed to one more registration.

**We aren't responsible if these instructions are not followed.**

**NOTE: In order to be accepted, registration documents must be clearly completed in full and returned before the deadline of October 9th 2025.**
**Late registration is possible, but ProBioQual can't guarantee availability of stock.**

# OUR QUALITY CONTROL SCHEMES (*)

(*) *Subject to modification*

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Accréditation
N° 1-5587
Portée disponible
sur www.cofrac.fr

= **A** : Accredited scheme as per NF EN ISO/IEC 17043

# OUR QUALITY CONTROL SCHEMES cont. (*)

(*) *Subject to modification*


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| | **TIH** | Anti-PF4 antibody analysis | 22 |
| **SEROLOGY** | | | |
| | **FONG-Ac** | Anti-*Aspergillus* antibodies | 23 |
| | **FONG-Ag** | Aspergillus antigen in serum | 23 |
| | **FONG-LBA** | Aspergillus antigen detection in BAL | 23 |
| | **CRYPTO** | *Cryptococcus* antigen in serum | 23 |
| A | **SYPHI** | Syphilis serology | 23 |
| A | **LYME** | Lyme serology | 23 |
| **BACTERIOLOGY** | | | |
| | **BAC** | Bacteriology | 24 |
| | **HELI** | *H. pylori* breath test | 24 |
| **REPRODUCTIVE BIOLOGY** | | | |
| | **SPE** | Semen analysis | 24 |
| **MULTI-DISCIPLINARY** | | | |
| A | **HIL** | Serum indices | 25 |
| | **BD** | Point-of-care testing | 25 |


Accréditation N° 1-5587 Portée disponible sur www.cofrac.fr — cofrac COMPARAISONS INTERLABORATOIRES = **A** : Accredited scheme as per NF EN ISO/IEC 17043


| | | |
|---|---|---|
| **HABI – STAFF ACCREDITATION ASSISTANCE** | | |
| **HCHF** | Blood cytology | 26 |
| **HCLCR** | CSF cytology | 26 |

# EQA – EXTERNAL QUALITY ASSESSMENT

## 1 – BIOCHEMISTRY (Sub-family General and Specialised Biochemistry)

### Serum biochemistry (chemistry, lipids, specific proteins) — CQH

***746 enrolled analytical sites*** *(since 1973) – Estelle Bugni, Régine Cartier, Laurent Desmurs, Christine Lombard*

*Human serum (lyophilised or liquid),* ***1 mL to 5 mL***

**22 surveys** per year – **32** samples - **62 analytes tested**

€550

A

| | | | | |
|---|---|---|---|---|
| Total bile acids | Conjugated bilirubin | Total cholesterol | IgA / IgG / IgM | Potassium |
| 5'-nucleotidase | **Free bilirubin** | CK | Lactate | Prealbumin |
| α Amylase | Total bilirubin | Complement C3 | LDH | Total protein |
| Uric acid | Calcium | Complement C4 | Lipase | Soluble transferrin receptors |
| ALT (SGPT)/AST (SGOT) | **Total neonatal bilirubin** | Creatinine | Lp(a) | Retinol binding protein (RBP) |
| Albumin | | CRP | Magnesium | Sodium |
| Alpha-1 antitrypsin | Ceruloplasmin | Cystatin C | Orosomucoid (α -1-acid glycoprotein) | Transferrin |
| Alpha-2 macroglobulin | Kappa and lambda free light chains | Iron | | Transferrin saturation coefficient |
| Ammonia | Chloride | Ferritin | Osmolality | Triglycerides |
| ApoA2/ApoC2/ApoC3 | HDL cholesterol | Gamma-GT | ALP | Urea |
| Apolipoprotein A1 and B | LDL cholesterol | Glucose | Phosphate | |
| Bicarbonate | Free cholesterol | Haptoglobin | Phospholipids | |

Rheumatoid factor **(autoimmunity)**

**Optional, subject to OBLIGATORY CQH registration:**

### Fructosamine — FRUCTO option

***45 enrolled analytical sites*** *(since 2021) – Estelle Bugni, Régine Cartier, Laurent Desmurs*

*Lyophilised materials,* ***1 mL***

**4 surveys** per year – **4** samples

Fructosamine

€190

A

### Serum protein electrophoresis and monoclonal immunoglobulin typing — EPS

***401 enrolled analytical sites*** *(since 2012) – Magali Dechomet, Béatrice Guillemin, Christine Lombard*

*Human serum (lyophilised),* ***1 mL***

**6 surveys** per year – 6 samples

**Clinical Cases**

€260

A

| | | |
|---|---|---|
| Total protein | Protein electrophoresis | **Monoclonal immunoglobulin typing** |
| IgA / IgG / IgM | Kappa free light chains | Lambda free light chains |

### Blood gas with electrolytes — ⚠ 1 registration = 1 analyser = 1 box — GDS

***554 enrolled analytical sites*** *(since 2013) – Régine Cartier, Béatrice Guillemin, Bernard Poggi, Isabelle Quadrio*

*Ready-to-use ampoules*

**4 surveys** per year – 6 samples

**1st box** €125

**Additional box** €95

A

| | | |
|---|---|---|
| pH | Bicarbonate | Glucose (blood gas) |
| $pO_2$ | Ionised calcium | Lactate (blood gas) |
| *pCO2* | *Chloride (blood gas)* | *Potassium (blood gas)* |
| Total $CO_2$ | Creatinine (blood gas) * | Sodium (blood gas) |

**Optional, subject to OBLIGATORY GDS registration:**

### CO-Oxymetry — ⚠ 1 registration = 1 analyser = 1 box — COOX option

***445 enrolled analytical sites*** *(since 2017)*

*Régine Cartier, Béatrice Guillemin, Bernard Poggi, Isabelle Quadrio*

*Ready-to-use ampoules* - **4 surveys** per year – **5** samples

**1st box** €160

**Additional box** €100

⚠ *This option is not suitable for Cobas b123 (ROCHE) devices.*

| | | | | |
|---|---|---|---|---|
| Total haemoglobin | Methaemoglobin | Carboxyhaemoglobin | Oxyhaemoglobin (O2Hb or fractional haemoglobin saturation) | Measured functional saturation $SO_2$ |

**A** : Accredited scheme (as per NF EN ISO/IEC 17043 No. 1-5587. Scope available at www.cofrac.fr)

* : Analytes not covered by accreditation

# EQA – EXTERNAL QUALITY ASSESSMENT

**BIOCHEMISTRY** (Sub-family General and Specialised Biochemistry) - cont.

## Glycated haemoglobin — HBA1C

***437 enrolled analytical sites*** *(since 2009) – Charlotte Cuerq, Philippe Joly, Louis Lacaille, Bernard Poggi, Laetitia Selman*

*Human blood (lyophilised),* ***0.3 to 0.5 mL***

**4 surveys** per year – **6** samples

€280

A

| |
|---|
| HbA1c |

⚠ This scheme is not compatible with Afinion (ABBOTT) devices, registration for the BD scheme (page 25) possible.

## Haemoglobin electrophoresis — ELHB

***115 enrolled analytical sites*** *(since 2011) – Philippe Joly, Louis Lacaille, Laetitia Selman*

*Human blood (lyophilised),* ***0.5 mL***

**4 surveys** per year – **6** samples

**Clinical Cases**

€315

A

| |
|---|
| Electrophoretic fractions of haemoglobin |

## Cardiac markers — CARD

***739 enrolled analytical sites*** *(since 2002) – Delphine Collin-Chavagnac, Charlotte Cuerq, Béatrice Guillemin, Bernard Poggi*

*Human serum (lyophilised),* ***2 to 3 mL***

**4 surveys** per year – **7** samples

€225

A

| | | | |
|---|---|---|---|
| Myoglobin | Troponin I | Troponin T | Homocysteine |

## Natriuretic peptides — CPN

***655 enrolled analytical sites*** *(since 2008) – Delphine Collin-Chavagnac, Charlotte Cuerq, Béatrice Guillemin, Bernard Poggi*

*Human plasma (lyophilised),* ***1 mL to 2mL***

**4 surveys** per year – **6** samples

€335

A

| | |
|---|---|
| BNP | NT-proBNP |

## Procalcitonin — PCT

***594 enrolled analytical sites*** *(since 2010) – Béatrice Guillemin, Bernard Poggi, Sabine Zaepfel*

*Human serum (lyophilised),* ***1 mL***

**4 surveys** per year – **8** samples

€210

A

| | |
|---|---|
| Quantitative procalcitonin | Semi-quantitative procalcitonin |

## Catecholamines and plasma derivatives — CATE

***31 enrolled analytical sites*** *(since 2017) – Estelle Bugni*

*Plasma and serum (lyophilised),* ***3 to 5 mL***

**4 surveys** per year – **6** samples

€270

| | | | |
|---|---|---|---|
| Adrenaline (epinephrine) | Total metanephrine | Free metanephrine | Serotonin |
| Noradrenaline (norepinephrine) | Total normetanephrine | Free normetanephrine | 5-Hydroxyindoleacetic acid |
| Dopamine | Total 3-methoxytyramine | Free 3-methoxytyramine | |

## Biochemical risk assessment for fetal Down's Syndrom — MSMPO

***66 enrolled analytical sites*** *(since 2011) – David Cheillan, Magali Pettazzoni, Laetitia Selman*

*Human serum (lyophilised),* ***1 mL***

**4 surveys** per year – **8** samples

**Demographic data**

€620

A

| | | |
|---|---|---|
| Total hCG | Free beta-hCG | AFP |
| Estriol | PAPP-A | Risk calculation |

**A** : Accredited scheme (as per NF EN ISO/IEC 17043 No. 1-5587. Scope available at www.cofrac.fr)

**BIOCHEMISTRY** (Sub-family General and Specialised Biochemistry) - cont.

## Immunoassay with marker

*Marie Lopez, Laetitia Selman – Lyophilised human serum (except CIMG samples for glucagon)*

**6 surveys** per year – **12** samples (except **CIMG, CIMK and CIMM** schemes: **9** samples)

**63 analyses distributed over 12 different serums**

### CIMD - Tumour markers and general hormones — *3 mL/vial*

| | |
|---|---|
| **1st box** | **€520** |
| **Additional box** | **€250** |

***726 enrolled analytical sites*** *(since 1977)*

⚠ Sample volume: if necessary, order an additional kit.

A

| | | | | |
|---|---|---|---|---|
| CEA | Ferritin | C-peptide | Free $T_3$ | Total IgE **(allergy)** |
| AFP | Folate | Progesterone | Free $T_4$ | Parathyroid hormone |
| β2 microglobulin | FSH | Prolactin | Testosterone | Estradiol |
| CA 125 | Total hCG | Free PSA | TSH | Cortisol |
| CA 15-3 | GH | Total PSA | Vitamin $B_{12}$ | LH |
| CA 19-9 | Insulin | ❖ DHT (dihydrotestosterone) | ❖ S100 protein β | ❖ EPO |

❖ **4 surveys per year**

### CIMB - Gonadal peptides — *1 mL/vial* — €480

***112 enrolled analytical sites*** *(since 2013)*

A

| | |
|---|---|
| AMH | Inhibin B |

### CIME - Specialised hormones (steroids, IGF-1 and IGFBP-3) — *3 mL/vial* — €380

***132 enrolled analytical sites*** *(since 2013)*

A

| | | |
|---|---|---|
| Aldosterone | 17-α-OH-progesterone | $\Delta_4$-androstenedione |
| DHEA sulfate | IGF-1 | SHBG or TeBG |
| DHEA | IGFBP-3 | |

### CIMF - Specialised tumour markers — *1 mL/vial* — €285

***162 enrolled analytical sites*** *(since 2013)*

A

| | | |
|---|---|---|
| CA 72-4 | Cyfra 21-1 | NSE |
| Free β hCG subunit | Thyroglobulin | |

### CIMG - Glucagon *(9 samples containing monomeric glucagon)* — *0.5 mL/vial* — €395

***15 enrolled analytical sites*** *(since 2013)*

| |
|---|
| Glucagon |

A

### CIMH - ACTH — *1 mL/vial* — €240

***131 enrolled analytical sites*** *(since 2013)*

| |
|---|
| ACTH |

A

### CIMK - Thyroid antibodies *(9 samples)* — *1 mL/vial* — €370

***306 enrolled analytical sites*** *(since 2024)*

A

| | | |
|---|---|---|
| *Anti-TG (autoimmunity)* | *Anti-TPO (autoimmunity)* | *Thyrotropin receptor autoantibodies (TRAb)* |

### CIMM - Bone markers *(9 samples)* — *1 mL/vial* — €360

***63 enrolled analytical sites*** *(since 2024)*

| | | |
|---|---|---|
| BAP | P1NP | Osteocalcin |

### CIMN - Calcitonin — *1 mL/vial* — €265

***77 enrolled analytical sites*** *(since 2013)*

| |
|---|
| Calcitonin |

A

### CIMR - Renin and corticosteroids — *1 mL/vial* — €220

***70 enrolled analytical sites*** *(since 2013)*

A

| | | |
|---|---|---|
| PRA | Renin | |
| 11-Desoxycortisol | Corticosterone | Desoxycorticosterone |

### CIMT - Specialised hormones (free testosterone and gastrin) — *1 mL/vial* — €295

***18 enrolled analytical sites*** *(since 2013)*

A

| | |
|---|---|
| Free testosterone | Gastrin |

### CIMV - Vitamin D — *1 mL/vial* — €255

***438 enrolled analytical sites*** *(since 2013)*

A

| | |
|---|---|
| 25-(OH) vitamin D | 1,25-$(OH)_2$ vitamin D |

**A** : Accredited scheme (as per NF EN ISO/IEC 17043 No. 1-5587. Scope available at www.cofrac.fr)

# EQA – EXTERNAL QUALITY ASSESSMENT

**BIOCHEMISTRY** (Sub-family General and Specialised Biochemistry) - cont.

## CrossLaps — CTX

***62 enrolled analytical sites*** *(since 2024) – Marie Lopez, Laetitia Selman* — **€315**

*Human serum (lyophilised),* ***1 mL***

**4 surveys** per year – **6** samples

| |
|---|
| CTX |

⚠ This scheme is not compatible with ELISA (IDS).

## Biological preeclampsia markers — PREE

***45 enrolled analytical sites*** *(since 2020) – Louis Lacaille, Magali Pettazzoni, Bernard Poggi, Laetitia Selman* — **€420**

*Human serum (lyophilised),* ***1 mL***

**4 surveys** per year – **8** samples

**Demographic data**

| | | | |
|---|---|---|---|
| PlGF | sFlt-1 | sFlt-1/PlGF ratio | PAPP-A |
| **First-trimester pregnancy preeclampsia risk assessment** | | | |

## Cerebrospinal fluid biochemistry — LCR

***424 enrolled analytical sites*** *(since 2017) – Béatrice Guillemin, Bernard Poggi, Isabelle Quadrio* — **€210**

*Cerebrospinal fluid* ***3 mL****, in liquid form*

**4 surveys** per year – **6** samples

A

| | | | |
|---|---|---|---|
| Albumin | Chloride | Sodium | Glucose |
| Lactate | IgA / IgG / IgM | Total protein | |

## Urine biochemistry — CMU

***647 enrolled analytical sites*** *(since 1986) – Estelle Bugni, Bernard Poggi, Sabine Zaepfel* — **€290**

*Human urine (lyophilised),* ***5 mL***

**11 surveys** per year – **15** samples - **16 analytes tested**

A

| | | | | |
|---|---|---|---|---|
| Uric acid | Glucose | Osmolality | Total protein | Urea |
| Calcium | Magnesium | Phosphate | Albumin/creatinine ratio | Urine density* |
| Chloride | Albumin (microalbumin) | Potassium | Protein/creatinine ratio | |
| Urinary creatinine | β2 microglobulin* | Urine pH* | Sodium | |

## Glomerular Filtration Rate (GFR) and Chronic Kidney Disease (CKD) Evaluation — CLAI

***219 enrolled analytical sites*** *(since 2008) – Estelle Bugni, Bernard Poggi, Sabine Zaepfel* — **€145**

*4 surveys - 6 human serum and 6 human urine (lyophilised),* ***1 mL***

*1 survey on fresh human sample, 1 serum (****0.5 mL****) and 1 urine (****1.5 mL****)*

**i.e. 5 surveys** per year – **14** samples

A

| | | | |
|---|---|---|---|
| Serum creatinine | Creatinine clearance, measured | Cystatin C | Urine Albumin-to-Creatinine Ratio (UACR) |
| Urinary creatinine | GFR evaluation: CKD-EPI | GFR evaluation: KFRE | GFR evaluation: EKFC |
| Urinary Albumin (microalbumin) | | | |

## Catecholamines and urine derivatives — CATU

***47 enrolled analytical sites*** *(since 1983) – Estelle Bugni*

*Human urine (lyophilised),* ***5 mL***

**6 surveys** per year – **12** samples

| | |
|---|---|
| **1st box** | **€300** |
| **Additional box** | **€220** |

| | | | |
|---|---|---|---|
| Adrenaline (epinephrine) | Total normetanephrine | Free normetanephrine | Vanillylmandelic acid |
| Noradrenaline (norepinephrine) | Total metanephrine | Free metanephrine | Homovanillic acid |
| Dopamine | Total 3-methoxytyramine | Free 3-methoxytyramine | 5-Hydroxyindoleacetic acid |
| Urinary creatinine | | | |

## Urinary free cortisol — CLU

***66 enrolled analytical sites*** *(since 1983) – Estelle Bugni, Marie Lopez* — **€230**

*Human urine (lyophilised),* ***3 mL***

**6 surveys** per year – **12** samples

A

| | |
|---|---|
| Free cortisol | Urinary creatinine |

A : Accredited scheme (as per NF EN ISO/IEC 17043 No. 1-5587. Scope available at www.cofrac.fr)

* : Analytes not covered by accreditation

## 2 - PHARMACOLOGY – TOXICOLOGY (Sub-family Pharmacology-Toxicology)

### Blood alcohol — CALC

**€140**

***480 enrolled analytical sites*** *(since 2000) – Estelle Bugni, Antony Citterio-Quentin, Sabine Cohen*

*Human serum (lyophilised), **5 mL** and specific solvents*

**4 surveys** per year – **6** samples

A

| Ethanol |
|---|

### Medicines — CMED

**€220**

***438 enrolled analytical sites*** *(since 1993) – Estelle Bugni, Antony Citterio-Quentin, Sabine Cohen*

*Human serum (lyophilised), **5 mL***

**4 surveys** per year – **6** samples

A

| | | | |
|---|---|---|---|
| Valproic acid | Digoxin | Methotrexate | Theophylline |
| Amikacin | Gentamicin | Phenobarbital | Tobramycin |
| Caffeine | Lamotrigine* | Phenytoin | Vancomycin |
| Carbamazepine | Lévétiracétam* | Tacrolimus | |
| Cyclosporine | Lithium | Teicoplanin | |

### Serum toxicology — Qualitative and quantitative analyses — TOXS

**€165**

***326 enrolled analytical sites*** *(since 2012) – Antony Citterio-Quentin, Sabine Cohen, Christophe Doche*

*Human serum (lyophilised), **5 mL***

**4 surveys** per year – **6** samples

**Clinical Cases**

A

**5 drug families/molecules analysed systematically:**

| | | | | |
|---|---|---|---|---|
| Tricyclic antidepressants | Barbiturates | Benzodiazepines | Paracetamol | Salicylates |

**And potentially all molecules (medicines and narcotics) detected using separation techniques**

### Urine toxicology — Qualitative and/or quantitative analyses — TOXU

**€160**

***533 enrolled analytical sites*** *(since 2007) – Antony Citterio-Quentin, Sabine Cohen, Christophe Doche*

*Human urine (lyophilised), **5 mL***

**4 surveys** per year – **4** samples

**Clinical Cases**

**12 drug and narcotic families/molecules analysed systematically:**

| | | | |
|---|---|---|---|
| Amphetamines | Benzodiazepines | Cocaine | Methadone |
| Tricyclic antidepressants | Buprenorphine | Ecstasy | Methamphetamine |
| Barbiturates | Cannabis | EDDP | Opiates |

**And other potentially toxic molecules detected using separation techniques**

### Urinary ethyl glucuronide — ETG

**€200**

***9 enrolled analytical sites*** *(since 2024) – Estelle Bugni, Bernard Poggi*

*Human urine (lyophilised)*

**4 surveys** per year – **6** samples

| Urinary ethyl glucuronide |
|---|

### Urinary cotinine — COTI

**€170**

⚠ Sample volume - order additional boxes if required

***70 enrolled analytical sites*** *(since 2004) – Estelle Bugni, Bernard Poggi*

*Human urine (lyophilised), **1.5 mL***

**4 surveys** per year – **6** samples

| Quantitative cotinine | Qualitative cotinine |
|---|---|

**A**: Accredited scheme (as per NF EN ISO/IEC 17043 No. 1-5587. Scope available at www.cofrac.fr)

* : Analytes not covered by accreditation

## 3 - HAEMATOLOGY (Sub-family blood cytology)

### Blood count (stabilised blood) — NUM

***515 enrolled analytical sites*** *(since 2009) – Estelle Bugni, Laurent Jallades* — **€350**

*Stabilised blood* containing human RBCs, mammalian WBCs and platelets ready-to-use liquid, ***2 mL*** — A

**4 surveys** per year – **8** samples

| | | | | | |
|---|---|---|---|---|---|
| WBC | Haemoglobin | MCV | MCHC | Platelets (impedance, optical) | NRBC channel * |
| RBC (impedance, optical) | Haematocrit | MCH | RDW | MPV | |

**2 options, subject to OBLIGATORY NUM registration:**

### Complete blood count with reticulocyte count, fresh blood — NFR option

***439 enrolled analytical sites*** *(since 2011) – Estelle Bugni, Laurent Jallades* — **€280**

*Fresh human blood,* ***1 mL*** *samples delivered within* ***24 hours****,* ***to be analysed preferably on day of receipt*** — A

**4 surveys** per year – **4** samples

⚠ Limited to mainland France, not including Corsica

| | | | | |
|---|---|---|---|---|
| WBC | RBC (impedance, optical) | Haemoglobin | Haematocrit | MCV |
| RBC-most frequent volume (R-MFV) | MCH (impedance, optical) | MCHC | RDW | MPV |
| Platelets (impedance, optical, fluorescence, microscope) | Immature platelet fraction (IPF) | WBC differential (analyser, microscope) | Reticulocytes (fluorescence, microscope) | Immature reticulocyte fraction (IRF) |
| Reticulocyte haemoglobin content (CHr) | Myelemia* | Erythroblasts (analyzer, microscope) * | | |

### Reticulocyte count (stabilised blood) — RETI option

***241 enrolled analytical sites*** *(since 2015) – Estelle Bugni, Laurent Jallades* — **€215**

*Human and animal blood (ready-to-use liquid),* ***3 mL*** — A

**2 surveys** per year – **4** samples

| |
|---|
| Reticulocytes |

For a larger panel of reticulocyte concentrations, combining NFR and RETI OPTIONS is recommended.

### Sedimentation rate — VS

***149 enrolled analytical sites*** *(since 2012) – Estelle Bugni, Laurent Jallades* — **€250**

*Human and animal blood (ready-to-use liquid),* ***6 mL*** — A

**4 surveys** per year – **8** samples

| |
|---|
| Sedimentation rate 1st hour |

⚠ These samples are not compatible with the technique measuring RBC aggregation capacity using photometry ALIFAX (ROLLER 10/ROLLER 20/JO-PLUS and TEST1), ALCOR Scientific (iSED and miniiSED), MINDRAY BC-780, etc.

### Blood cytology on digital slides — CYTO

***50 enrolled analytical sites*** *(since 2015) – Laurent Jallades, Laetitia Selman* — **€250**

**4 surveys** per year – **8** digitalised MGG-stained blood smears

**Clinical Cases**

| | | |
|---|---|---|
| WBC differential | Appearance of cellular elements | Diagnostic hypothesis |

**see IT prerequisites** (page 5)

### CSF cytology on digital slides — CLCR

***72 enrolled analytical sites*** *(since 2018) – Cécile Dumas, Laurent Jallades, Philippe Joly, Laetitia Selman* — **€200**

**4** surveys per year – **4** digitalised MGG-stained or Wright Giemsa-stained cytocentrifuge slides

**Clinical Cases**

| | |
|---|---|
| Nucleated cell differential | Diagnostic hypothesis |

**see IT prerequisites** (page 5)

A : Accredited scheme (as per NF EN ISO/IEC 17043 No. 1-5587. Scope available at www.cofrac.fr)

* : Analytes not covered by accreditation

## 4 – HAEMOSTASIS (Sub-family Haemostasis)

### Haemostasis — HMPO

⚠ Sample volume: if necessary, order an additional kit.

***547 enrolled analytical sites*** *(since 1975) – Chantal Bon, Béatrice Guillemin*

*Human citrated plasma (lyophilised),* ***1 mL***

**10 surveys** per year – **20** plasmas

| | |
|---|---|
| **1st box** | **€300** |
| **Additional box** | **€210** |

A

| | | | | |
|---|---|---|---|---|
| Prothrombin time activity (%), Prothrombin time and INR | PTR differential factors (II, V, VII, X) | Antithrombin (activity and antigen) | Protein S (activity and antigen) | Thrombin time |
| Fibrinogen | aPTT differential factors (VIII, IX, XI, XII) | Protein C (Activity and antigen) | Free protein S | Reptilase time |
| aPTT / KCT | Factor XIII | | | |

### Heparin — HPPO

**€270**

***324 enrolled analytical sites*** *(since 1990) – Chantal Bon, Béatrice Guillemin*

*Human citrated plasma (lyophilised),* ***1 mL***

**6 surveys** per year – **20** plasmas (10 vials SH + 10 vials LMWH)

A

| | |
|---|---|
| Standard heparin (SH) | Low-molecular-weight heparin (LMWH) |

### D-Dimers / Von Willebrand factor — HMDD

**€250**

***541 enrolled analytical sites*** *(since 2000) – Chantal Bon, Béatrice Guillemin*

*Human citrated plasma (lyophilised),* ***1 mL***

**6 surveys** per year – **12** plasmas (D-dimer assay on **12** samples and Von Willebrand factor assay on **8** samples)

A

| | | |
|---|---|---|
| D-Dimers | Von Willebrand facto antigen | Von Willebrand factor activity |

### Circulating anticoagulants — ACC

⚠ Sample volume: if necessary, order an additional kit.

***156 enrolled analytical sites*** *(since 2013) – Chantal Bon, Béatrice Guillemin*

*Human citrated plasma (lyophilised),* ***1 mL***

**4 surveys** per year – **8** samples

| | |
|---|---|
| **1st box** | **€270** |
| **Additional box** | **€200** |

A

| | |
|---|---|
| aPTT | Dilute Russell's viper venom time (dRVVT screening and confirmation) |
| Mix test | dRVVT mix/control ratio |
| ROSNER indice | Staclot LA® |
| Sensitive/insensitive aPTT normalised ratio | Hemosil Silica Clotting Time® (screening and confirmation) |

### Apixaban — APIX

**€280**

***130 enrolled analytical sites*** *(since 2017) – Chantal Bon, Béatrice Guillemin*

*Human citrated plasma (lyophilised),* ***1 mL***

**4 surveys** per year – **6** samples

A

| |
|---|
| Apixaban |

### Danaparoid — DANA

**€230**

***57 enrolled analytical sites*** *(since 2020) – Chantal Bon, Béatrice Guillemin*

*Human citrated plasma (lyophilised),* ***1 mL***

**4 surveys** per year – **6** samples

A

| |
|---|
| Danaparoid |

### Dabigatran — DABI

**€280**

***64 enrolled analytical sites*** *(since 2017) – Chantal Bon, Béatrice Guillemin*

*Human citrated plasma (lyophilised),* ***1 mL***

**4 surveys** per year – **6** samples

A

| |
|---|
| Dabigatran |

**A** : Accredited scheme (as per NF EN ISO/IEC 17043 No. 1-5587. Scope available at www.cofrac.fr)

**HAEMOSTASIS** (Sub-family Haemostasis) cont.

## Fondaparinux — FONDA

***19 enrolled analytical sites*** *(since 2020) – Chantal Bon, Béatrice Guillemin*
*Human citrated plasma (lyophilised),* ***1 mL***
**4 surveys** per year – **6** samples

€230
A

Fondaparinux

## Rivaroxaban — RIVA

***128 enrolled analytical sites*** *(since 2017) – Chantal Bon, Béatrice Guillemin*
*Human citrated plasma (lyophilised),* ***1 mL***
**4 surveys** per year – **6** samples

€280
A

Rivaroxaban

## Argatroban — ARGA

***18 enrolled analytical sites*** *(since 2024) – Chantal Bon, Béatrice Guillemin*
*Human citrated plasma (lyophilised),* ***1 mL***
**4 surveys** per year – **6** samples

€280

Argatroban

## Fibrin monomers — MONO

***88 enrolled analytical sites*** *(since 2019) – Chantal Bon, Béatrice Guillemin*
*Human citrated plasma (lyophilised),* ***1 mL***
**4 surveys** per year – **6** samples

€330
A

Fibrin monomers

## Fibrin and fibrinogen degradation products — PDF

***26 enrolled analytical sites*** *(since 2022)- Chantal Bon, Béatrice Guillemin*
*Human citrated plasma (lyophilised),* ***1 mL***
**4 surveys** per year – **6** samples

€350

Quantitative FDP
Semi-qualitative FDP

## Anti-PF4 antibody analysis — TIH

***110 enrolled analytical sites*** *(since 2022) – Chantal Bon, Béatrice Guillemin*
*Human citrated plasma (ready-to-use liquid),* ***0.5 mL***
**4 surveys** per year – **8** samples

€270

Anti-PF4 antibodies

⚠ This scheme is only designed for immunological techniques (rapid and ELISA).

A : Accredited scheme (as per NF EN ISO/IEC 17043 No. 1-5587. Scope available at www.cofrac.fr)

## 5 – SEROLOGY (Sub-family Infectious serology)

### Anti-*Aspergillus* antibodies — FONG-Ac

⚠ Sample volume: if necessary, order an additional kit.

€200

***41 enrolled analytical sites*** *(since 2021) – Estelle Bugni, Florence Persat*

*Human serum (liquid),* ***0.35 mL***

**4 surveys** per year – **4** samples

⚠ Limited to mainland France

| | |
|---|---|
| Anti-Aspergillus antibodies - quantitative | Anti-Aspergillus antibodies - qualitative |

### Aspergillus antigen in serum — FONG-Ag

€210

***42 enrolled analytical sites*** *(since 2021) – Estelle Bugni, Florence Persat*

*Human serum (lyophilised),* ***1 mL***

**4 surveys** per year – **6** samples

| | |
|---|---|
| Aspergillus antigen - quantitative | Aspergillus antigen - qualitative |

### Aspergillus antigen detection in BAL — FONG-LBA

€200

***39 enrolled analytical sites*** *(since 2021) – Estelle Bugni, Florence Persat*

*Human control BAL (ready-to-use liquid),* ***0.9 mL***

**4 surveys** per year – **4** samples

⚠ Limited to mainland France, not including Corsica

| | |
|---|---|
| Aspergillus antigen - quantitative | Aspergillus antigen - qualitative |

### *Cryptococcus* antigen in serum — CRYPTO

⚠ Sample volume: if necessary, order an additional kit.

€210

***52 enrolled analytical sites*** *(since 2014) – Estelle Bugni, Florence Persat*

*Human serum (lyophilised),* ***0.5 mL***

**4 surveys** per year – **4** samples

| | |
|---|---|
| *Cryptococcus* antigen - detection | *Cryptococcus* antigen - titration |

### Syphilis serology — SYPHI

€190

A

***94 enrolled analytical sites*** *(since 2015)*

*Béatrice Guillemin, Laurence Parmeland, Chantal Roure-Sobas, Florian Scherrer, Valérie Verneau*

*Human serum (lyophilised),* ***1 mL***

**4 surveys** per year – **6** samples

**Clinical Cases**

| | | | |
|---|---|---|---|
| Treponemal test (automated technique) | Non-treponemal test (manual technique) | Non-treponemal test (automated technique) | Interpretation |

### Lyme serology — LYME

€205

A

***46 enrolled analytical sites*** *(since 2017) – Béatrice Guillemin, Chantal Roure-Sobas, Florian Scherrer*

*Human serum (lyophilised),* ***1 mL***

**4 surveys** per year – **6** samples

**Clinical Cases**

| | | |
|---|---|---|
| Screening tests IgG and IgM | Confirmation tests IgG and IgM | Interpretation |

A : Accredited scheme (as per NF EN ISO/IEC 17043 No. 1-5587. Scope available at www.cofrac.fr)

## 6 – BACTERIOLOGY (Sub-family Bacteriology)

### Bacteriology — BAC

**€510**

***57 enrolled analytical sites*** *(since 2015)*

*Béatrice Guillemin, Laurence Parmeland, Chantal Roure-Sobas, Florian Scherrer, Valérie Verneau*

**2 samples for urine culture, 2 samples for urine cytology and 4 bacterial strains**

**4 surveys** per year – **8** samples

**Clinical Cases**

⚠ Limited to mainland France

| | | | |
|---|---|---|---|
| Urine cytology | Bacterial identification | Antimicrobial susceptibility test | Resistance mechanism |

### *H. pylori* breath test — HELI

⚠ **1 registration = 1 analyser = 1 box**

**€430**

***19 enrolled analytical sites*** *(since 2025) – Estelle Bugni, Bernard Poggi*

*Synthetic air labelled with $^{13}C$ isotope*

**4 surveys** per year – **8** samples

| | |
|---|---|
| Delta Tube T0<br>Delta Tube T30 | Difference T30-T0 (DOB) |

⚠ This scheme is intended exclusively for tube-based techniques (not suitable for bag-based techniques).

## 7 – REPRODUCTIVE BIOLOGY (Sub-family Diagnostic semen analysis)

### Semen analysis — SPE

**€1,500**

***23 enrolled analytical sites*** *(since 2018) – André Force, Marie Lety, Benoit Schubert, Laetitia Selman*

*Human samples (liquid) (**0.2 mL**), digitalised smears and videos*

**4 surveys** per year

**Clinical Cases**

⚠ Laboratories outside mainland France: please contact us.

| | | | |
|---|---|---|---|
| Sperm concentration | Motility | Vitality | Morphology |
| Round cell concentration 1 survey per year | | | |

**see IT prerequisites (page 5)**

## 8 – MULTI-DISCIPLINARY (Biochemistry, haematology, haemostasis, serology)

### Serum indices — Quantitative and semi quantitative analyses — HIL

***700 enrolled analytical sites*** *(since 2018) – Régine Cartier, Marie Lopez, Bernard Poggi, Laetitia Selman*

*Human samples (lyophilised),* ***1 or 5 mL***

**4 surveys** per year – **8** samples

**€225**

A

| Haemolysis index | Icterus index | Lipaemia index |
|---|---|---|

Suitable for all analysers carrying out serum index measurements (chemistry, haemostasis, serology devices, immunoassays modules, etc.).

### Point-of-care testing — ⚠ 1 registration = 6 entries — BD

*Chantal Bon, Marie Lopez, Bernard Poggi, Laetitia Selman*

⚠ Limited to mainland France, not including Corsica

**3 cumulative options available:**

#### Biochemistry / Haematology option — BDB

***276 enrolled analytical sites*** *(since 2018)*

*Fresh human blood, ready-to-use,* ***1.2 mL, to be analysed preferably on day of receipt***

**4 surveys** per year – **4** samples

**1st box** **€285**

**Additional box** **€240**

| | | | |
|---|---|---|---|
| Creatinine | Glucose | HbA1c | Lactate |
| CRP (*Quantitative techniques*) | hCG (*Quantitative techniques*) | Haemoglobin | Urea |
| CRP (*Semi-quantitative techniques*) | hCG (*Qualitative techniques*) | Haematocrit | |

#### INR option — BDH

***27 enrolled analytical sites*** *(since 2018)*

*Human plasma (ready-to-use liquid),* ***0.3 mL***

**4 surveys** per year – **6** samples

**1st box** **€295**

**Additional box** **€225**

| INR |
|---|

#### D-Dimers option — BDDI

***16 enrolled analytical sites*** *(since 2025)*

*Human plasma (ready-to-use liquid),* ***0.5 mL***

**4 surveys** per year – **6** samples

**1st box** **€295**

**Additional box** **€225**

| D-DIMERS |
|---|

A : Accredited scheme (as per NF EN ISO/IEC 17043 No. 1-5587. Scope available at www.cofrac.fr)

# HABI- STAFF ACCREDITATION ASSISTANCE

The objective of this scheme is to assist laboratory with staff accreditation (laboratory biologists, technicians, laboratory medicine trainees) with regard to **initial qualification, maintenance of proficiency, and inter-operator comparability**. ProBioQual provides the evaluator (administrator) with:

- A complete file: digital slide, clinical context and, laboratory test results,
- A reference value and suggested acceptable limits, defined by ProBioQual's expert laboratory biologists,
- A 'model' interpretation.

The medical laboratory is responsible for the accreditation of its staff. **ProBioQual allows the laboratory to choose the accreditation criteria for its staff.**
ProBioQual provides its expertise as an indication and offers an extraction of the tested individuals' results in spreadsheet format for the laboratory.

| HABI - Blood cytology | One registration = 15 entries (15 different users) | HCHF |
|---|---|---|

***68 enrolled analytical sites*** *(since 2018) – Laurent Jallades, Laetitia Selman* **€200**

**HAEMOGRAM CYTOLOGY ON DIGITALISED MGG-STAINED BLOOD SMEARS**

*6 digital blood smears provided in one delivery for the year* **Clinical cases**

| WBC differential | Appearance of cellular elements | Diagnostic hypothesis |
|---|---|---|

**see IT prerequisites** (page 5)

| HABI - CSF cytology | One registration = 15 entries (15 different users) | HCLCR |
|---|---|---|

***24 enrolled analytical sites*** *(since 2019) –Cécile Dumas, Laurent Jallades, Phillipe Joly, Laetitia Selman* **€200**

**CYTOLOGY ON DIGITALISED MGG-STAINED OR WRIGHT GIEMSA-STAINED CYTOCENTRIFUGE SLIDES**

*6 digital cytocentrifuge slides provided in one delivery for the year* **Clinical cases**

| Nucleated cell differential | Diagnostic hypothesis |
|---|---|

**see IT prerequisites** (page 5)

Summary results table with interpretation guide is available for download by the laboratory after entry.
The medical laboratory is in charge of accreditation according to its own criteria.

# ProBioQual - GENERAL TERMS AND CONDITIONS

**Any order implies unreserved acceptance of our general terms and conditions.**

## 1- PRICE

**Our prices are calculated as fairly as possible on the basis of our association's operating costs and the cost of preparing control samples.**
**All prices are given net of tax (VAT not applicable - Article 261 of the French Tax Code).**
**The price for registering for a scheme includes supply of the control specimens or digital media, statistical processing, appraisal by the expert laboratory biologists coordinating the scheme and the annual report.**
**The price indicated in the brochure corresponds to the number of surveys for each scheme. Optional free additional surveys, which may or may not be covered by the accreditation, may be proposed. In registering, you accept services that may not be covered by the accreditation.**
For **one registration on an EQA scheme**, we will allocate you **two entries** allowing you to analyse two analytical systems (or two techniques) at **a same geographical laboratory site** (unless otherwise indicated in the EQA scheme documentation).
If you have more than two systems for assessment, you must proceed to one more registration (**one registration for every two analysers**), in conformity with French legislation.

## 2- PAYMENT TERMS

The payment terms available are cheque payable to ProBioQual or bank transfer to CCP LYON IBAN: FR70 20041 01007 0663730U038 65/BIC: PSSTFRPPLYO (attach your bank's confirmation of payment).
**Private laboratory: payment is due on registration.**
**Public hospital laboratory: payment is due on receipt of the invoice.**

**Bank fees and charges are payable by the ordering laboratory. Any bank fees charged to ProBioQual will be passed on to the ordering laboratory.**
In case of late payment:

- A late payment fee equal to the statutory interest rate in force on the order date will be applied from the first day after payment is due, without any prior notice being required.
- The compensation for recovery costs is an amount of €40.00 (in compliance with French Decree 2012-1115 of 2 October 2012).
- ProBioQual reserves the right to suspend processing of ongoing schemes and block future registrations immediately without any delay.

## 3 - SHIPMENT - DELIVERY

### → DELIVERY COSTS TO MAINLAND FRANCE (INCLUDING CORSICA)

**Shipping is free of charge for orders more than €800.**
Orders less than €800: an amount delivery fee of **€50** for shipment will be applied to each order.

### → DELIVERY COSTS OUTSIDE MAINLAND FRANCE *(Subject to change)*

**A flat rate is applied on the basis of the geographical area. Please see the terms on your registration form.**
**Taxes, customs duties and dock dues:**
For control samples sent outside the E.U., to French overseas departments and territories, to French territorial communities or to the Principality of Andorra, any customs duties, taxes, fees or charges associated with the importing of control samples shall be affected to the recipient on receipt of the package.

### → SHIPMENT

**We will inform you by email** when a control sample package is shipped. It is your responsibility to ensure correct receipt, particularly for laboratories outside mainland France (possible customs bottlenecks).

### → DELIVERY

**The delivery address is the address for the reception of your package**. It is recorded when you create your account and **will be used for all future deliveries.**
It must be **as complete as possible** and specify, if applicable, the department, building, floor, etc. (Laboratories in mainland France (including Corsica): **do not use a PO box**).
**In case of force majeure, ProBioQual cannot be held liable for the incomplete execution or non-execution of its obligations, nor delays, errors or damage associated with the supply and transport of the control samples.**

### → PACKAGE RECEPTION

**All packages must be verified on receipt. It is the recipient's responsibility to verify the delivery note and the condition of the control samples.**
In case of claims or anomalies, the client must clearly make appear the necessary reservations on the delivery note, stating the damage or missing products.
**All claims relating to deliveries (differences, missing or incorrect products, anomalies, etc.) must be notified by email to secretariat@probioqual.com within 72 hours** of receipt of the delivery. After this period, the delivery will be considered compliant and no further claims may be filed.

## 4 - ORDER CANCELLATION

In conformity with our quality procedures and standard requirements, our control samples cannot be returned, exchanged or reimbursed for any reason after shipment.

## 5 – INTELLECTUAL PROPERTY AND COPYRIGHT

None of the media provided to participants in the context of ProBioQual's activities may be reproduced, in whole or in part, without the express permission of ProBioQual.

## 6 - CLAIMS

These general terms and conditions are subject to French law. All claims relating to commercial relationship are subject to the non-exclusive competence of the French courts and the Lyon Commercial Court.

## 7 – DATA PROTECTION

The General Data Protection Regulation (GDPR) came into effect on 25 May 2018. ProBioQual updated its privacy policy accordingly. Please read our legal information and privacy policy available on our secure website.
**If necessary, you can contact our DPO by email at** dpo@probioqual.com.
ProBioQual reserves the right to use participants' results anonymously for the purposes of scientific publications or studies.
In accordance with Article L-6221-9, ProBioQual may transfer laboratory results to the Regional Health Agency (ARS) on its request. The laboratories will be informed in writing in this case before transmission of results to ARS. It is only applicable to clinical laboratory submitted to French Law.

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