cobas® c 111 analyzer

Small box. Big performance.

cobas® c 111 as a part of Roche's portfolio with small footprint

Blood Gas & Electrolytes

- **cobas®** b 221 system

- **cobas®** b 123 POC system

- 9180 Electrolyte Analyzer


Cardiometabolics

- **cobas®** c 111 analyzer

- **cobas®** h 232 POC system

- Accutrend Plus system

- **cobas®** b 101 system


Coagulation

- CoaguChek Pro II

- CoaguChek INRange

- CoaguChek XS

- Multiplate Analyzer


Glucose

- **cobas®** pulse system

- Accu-Chek Inform II

- Accu-Chek Instant

- Accu-Chek Active

- Accu-Chek Guide

- Accu-Chek Instant S

- Accu-Chek Guide Me

- KETOSURE POC Blood Ketone Monitoring System

- Accu-Chek Mobile


Infectious Diseases

- **cobas®** liat

- SARS-CoV-2 Rapid Antigen Test 2.0 Nasal

- SARS-CoV-2 Rapid Antibody Test 2.0

- SARS-CoV-2 & FluA/B Rapid Antigen Test

- SARS-CoV-2 Rapid Antigen Test 2.0

- SARS-CoV-2 Antigen Self Test Nasal


Urine

- Urisys 1100 urine analyzer

- Combur-Teststrips

- Micral®-Test


Settings

- Hospital
- Primary Care
- At-Home
- Lab

cobas® c 111 analyzer

An instrument designed to fit in many ways

Routine

Perfectly suited as a **main analyzer** for:

- **Small labs**
- **Small hospitals & clinics**
- **Satellite labs** of larger networks

Backup

Serves well as a **backup analyzer** for larger **cobas**® clinical chemistry analyzers

Dedicated

Used as a **dedicated analyzer** for:

- **STAT samples** in emergency and intensive care departments by trained lab professionals
- **Special testing** such as only for HbA1c

Why customers choose the **cobas®** c 111 analyzer?

Small box. Big performance

Excellent performance

Roche lab quality test results with high accuracy and precision[1-3]

Highly reliable system

Robust system design, requiring a repair visit only once per 1.5 years[1]*

Standard Roche results

Aligned results across Roche **cobas®** platform using same reagent chemistry[2]

Compact and convenient

Over 40 different tests on only 0.3m², easy to use touch screen & software, low water consumption (<3l / day)

Globally trusted technology

~6700 installed active analyzers across 125 countries[1]

High Roche service level

90% of **cobas®** c 111 customers are satisfied or very satisfied with service & support[1]

Quality made in Switzerland

Roche quality analyzer produced in the heart of Europe[1]

LIS: Laboratory information system.

* Independent from repair visits, regular maintenance visits are required. Please refer to the Operator's Manual for more information.

Smart features make the **cobas®** c 111 analyzer a great solution[4]

Good fit for labs processing up to 85 tests per hour

Exchangeable disks for flexible reagent handling

- Preparation of up to 8 different reagent disks **adaptable to individual panel testing**
- Each reagent disk can hold up to **27 bottles** which allows for **13 different tests** in one reagent disk
- Prepared reagent disks **can be stored in a fridge until needed** and with one disk on board*

Low water consumption of up to 3 litres per day

- **Independent and flexible water supply** with 3 litre water and waste containers

Intuitive software design for easy operation

- **Guiding software wizard** for daily start-up and maintenance procedure
- “Time to Result” indicator for **predictable walk away time**

Streamlined sample handling for enhanced efficiency

- **Easily load any sample tube type** into the sample loading area, without the need for manual configuration
- **Experience uninterrupted workflow** with continuous sample loading (up to 60 cuvettes), eliminating the need to stop the instrument for new samples

* Within the shelf life of the respective parameter.

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High level performance on a small footprint[4]

1 Dynamic transfer head

- Multifunctional and lean design significantly reduces complexity by performing three functions in one:
  1. Sample pipetting 2. Reagent pipetting 3. Mixing of sample and reagent
- Sample probe is washed between steps to prevent carry-over

2 Sample loading area

- Samples can be loaded and unloaded continuously into eight positions
- STAT processing prioritizes emergency samples for next pipetting cycle
- Onboard sample and calibrator dilution

3 User interface

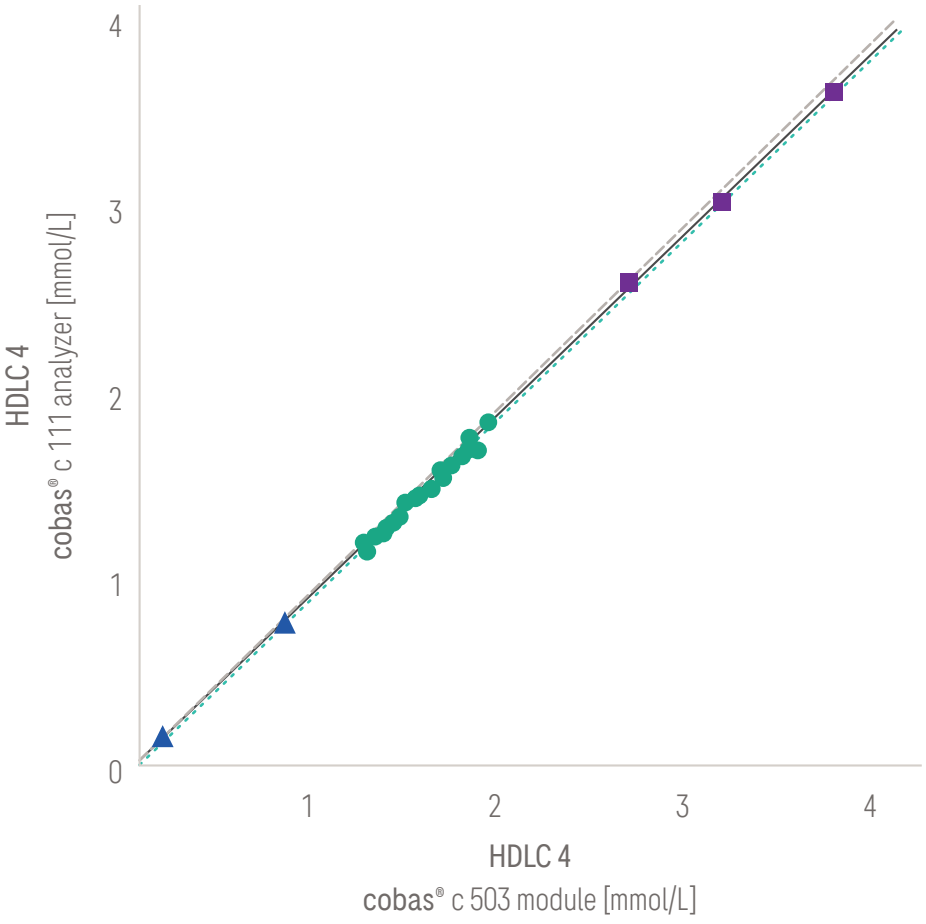
- User-friendly and easy to use user interface
- Online help function as a quick reference guide for system operation
- Software-driven start-up and maintenance procedures save daily setup time

4 Core unit

- Photometric testing for clinical chemistry and homogeneous immunoassays
- Interface for external barcode reader, reducing manual data entry errors
- Disposable cuvette segments to reduce water consumption
- Host connectivity options for convenient data management
- Integrated thermal printer

Comparable with larger Roche clinical chemistry analyzers, using common reagent chemistry

HDL-Cholesterol Gen.4 method comparison



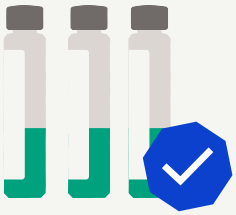
Diluted sample

Native samples

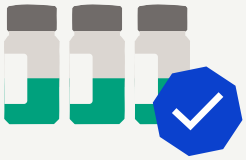
Spiked sample

P/B Regression
Y = 0.998 * X -0.0165
md(95) = 0.0272
n = 55, r = 0.999
t = 0.975

Proven consistency of results[5]



Same reagents used for **cobas®** c packs and **cobas®** c 111 reagent bottles, delivering comparable results across the **cobas®** platform



Same calibrators and controls available for all **cobas®** clinical chemistry analyzers

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Test parameters[1]

Anemia

Iron

Lactate dehydrogenase

Cardiac

Cholesterol

Creatine kinase (CK)

CK-MB

CRP hs

D-Dimer

HDL cholesterol

LDL cholesterol-direct

Infectious Diseases

CRP (latex)

Inflammation

CRP (latex)

Bone

Phosphorus

Endocrinology

Amylase – pancreatic

Amylase – total

Lipase

Metabolic

Bicarbonate (CO2)

Calcium

Glucose

HbA1c (hemolysate)

HbA1c (whole blood)

Lactate

LDL cholesterol-direct

Magnesium

Total protein

Triglycerides

Coagulation

D-Dimer

Hepatology

Alkaline phosphatase (IFCC)

ALT/GPT with and without Pyp

Ammonia

AST/GOT with and without Pyp

Bilirubin – direct

Bilirubin – total

Gamma glutamyl transferase

Lactate dehydrogenase

Renal

Albumin BCG

Albumin immunologic

Creatinine (enzymatic)

Creatinine (Jaffé)

Urea/BUN

Uric acid

Specifications[4]

System	**cobas**® c 111 analyzer A continuous random- access analyzer intended for the in vitro determination of clinical chemistry parameters
Test throughput	60–85 photometric tests/hr
Sample types	Serum, plasma, urine, whole blood (HbA1c)
Sample input	Continuous loading of primary and secondary tubes into 8 sample positions Priority STAT sampling
Time to first result	5–10 min for photometric measurements
Sample container types	Primary tubes 5–10 mL; 16 ×100, 16 ×75, 13 ×100, 13 ×75 Sample cup 2.5 mL Micro cup 1.5 mL Cup on tube Cup on 16 ×75 mm tube False bottom tube
Sample volume	Min. sample volume: Primary tubes 500 µL Sample cup 75 µL Micro cup 50 µL
Sample barcode types	Code 128, Codabar 2 of 7, Interleaved 2 of 5, Code 3 of 9, Codabar, EAN, UPC (A, E) QR, Aztec and DataMatrix
Sample dilution	1.2–100 times
Photometer	12 wavelengths, 20 W halogen lamp, monochromatic and bichromatic measurement
Measurement principles	Absorbance photometry (enzymes, substrates, specific proteins)
Reagents	2D barcoded system reagent bottles, 50–100 tests/bottle Photometric: 27 onboard reagent positions for approx. 13 assays Up to 8 exchangeable reagent discs available
Reaction cells	Disposable micro-cuvettes
Control unit	8.0 inch active matrix (WXGA 1024 ×768 pixels)
System interfaces	2 × RS 232 serial interface, bi-directional (ASTM protocol) for host and barcode scanner USB 1.1/2.0 for backing up data or loading data on the analyzer (USB flash drive)
Electrical requirements	Line voltage 100–125 V and 200–240 V AC (-15 %, +10 %) Line frequency 50Hz (± 5 %) and 60Hz (± 5 %) Power consumption 250 VA Installation category II (IEC 61010-1)
Physical dimensions	Width: 590 mm Depth: 550 mm Height: 480 mm Weight: 32 kg
Water requirements	Up to 3 liters/day NCCLS Type II (conductivity <1 µS/cm at 25 °C)
Regulatory requirements	CE, UL, C-UL
Open system	Development channel with 1, 3 or 5 channels available

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References

1. Data on file.
2. Roche (2023). Calculated method comparison of **cobas**® c 501 vs. **cobas**® c 111. Data on file.
3. Roche Diagnostics International Ltd. Method Sheets of major parameters: A1C-2, CRP4, LDLC4, LDLC3 and TRIGL.
4. Roche Diagnostics International Ltd. **cobas**® c 111 analyzer User Guide Version 4.5 Software Version 4.3
5. Roche (2023). Measured method comparison of **cobas**® c 503 vs. **cobas**® c 111. Data on file.

Published by
Roche Diagnostics International Ltd
CH-6343 Rotkreuz
Switzerland

diagnostics.roche.com