

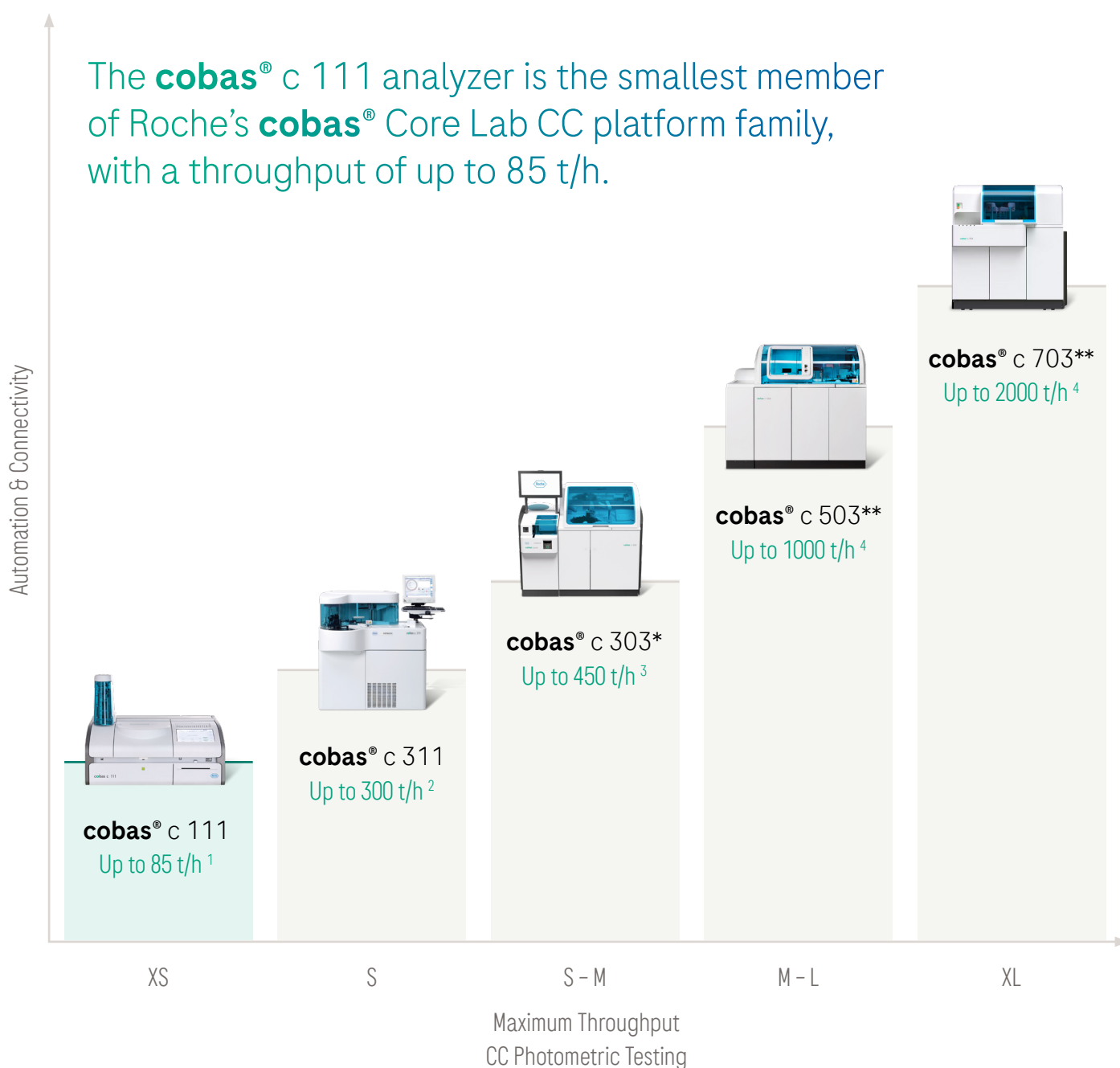
cobas® c 111 analyzer

Small box. Big performance.



cobas® c 111 as part of Roche's Core Lab clinical chemistry portfolio

The **cobas® c 111** analyzer is the smallest member of Roche's **cobas®** Core Lab CC platform family, with a throughput of up to 85 t/h.



CC: Clinical Chemistry; t/h: tests per hour.

* cobas® pure integrated solutions

** cobas® pro integrated solutions

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 precision⁵⁻⁷



Highly reliable system

Robust system design, requiring a repair visit only once per 1.5 years^{5*}



Globally trusted technology

~6700 installed active analyzers across 125 countries⁵



Standard Roche results

Aligned results across Roche **cobas®** platform using same reagent chemistry⁶



High Roche service level

90% of **cobas® c 111** customers are satisfied or very satisfied with service & support⁵



Compact and convenient

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



Quality made in Switzerland

Roche quality analyzer produced in the heart of Europe⁵

Smart features make the **cobas® c 111** analyzer a great solution⁸

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.

High level performance on a small footprint⁸



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

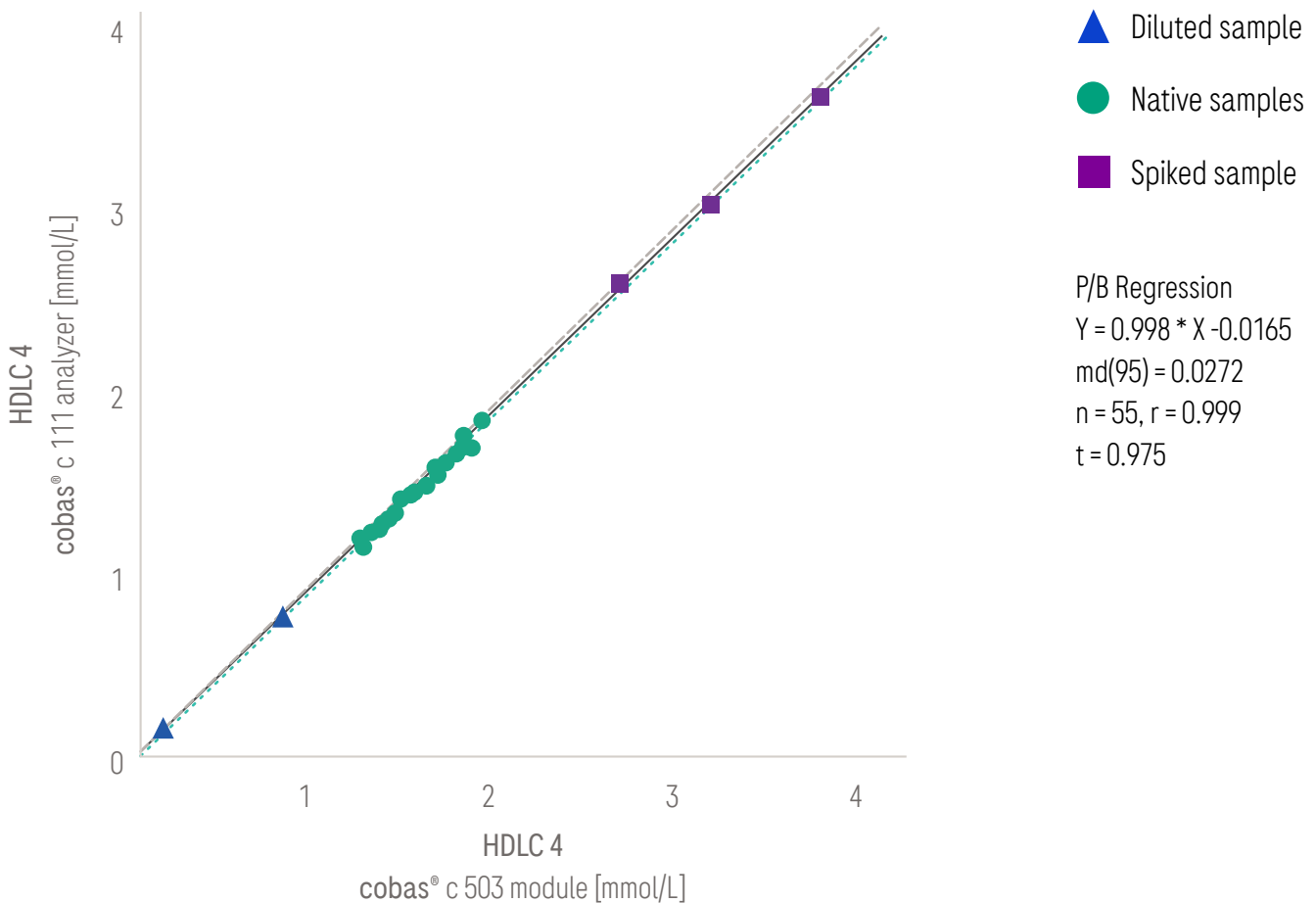
- User-friendly and easy to use user interface
- Online help function as a quick reference guide for system operation
- Software-driven start-up and maintenance procedures save daily setup time

4 Core unit

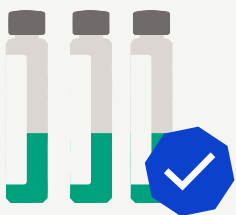
- Photometric testing for clinical chemistry and homogeneous immunoassays
- Interface for external barcode reader, reducing manual data entry errors
- Disposable cuvette segments to reduce water consumption
- Host connectivity options for convenient data management
- Integrated thermal printer

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

HDL-Cholesterol Gen.4 method comparison



Proven consistency of results⁹



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

Test parameters⁵

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



Specifications⁹

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	

References

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3. Roche Diagnostics International Ltd. **cobas**[®] **pure** integrated solutions User Guide Version 2.2 Software Version 01-04.
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5. Data on file.
6. Roche (2023). Calculated method comparison of **cobas**[®] c 501 vs. **cobas**[®] c 111. Data on file.
7. Roche Diagnostics International Ltd. Method Sheets of major parameters: A1C-2, CRP4, LDLC4, LDLC3 and TRIGL.
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