cobas h 232 POC system

The power to make decisions in cardiac emergencies

Roche

cobas®

Life needs answers

cobas h 232 POC system

Rapid results at the Point of Care (POC)

Wherever and whenever you face an emergency situation, measurement of cardiac biomarkers with the **cobas h** 232 POC system provides you with answers to facilitate your critical decisions and enhance risk stratification. The **cobas h** 232 POC system fits to:

- **Emergency Department**
- **Intensive Care Unit**
- **Physician's Office**
- **Patient's Home**
- **Ambulance**
- **Any Outpatient Setting**
- **Remote emergencies**

Examples of expertise in action

- Troponin T in chest pain – the 'Gold Standard' biomarker whose detection is a strong indicator of myocardial damage[5]
- Myoglobin/CK-MB in chest pain – two biomarkers with diagnostic potential (re-infarction) early after the onset of symptoms[5]
- NT-proBNP in dyspnea – now widely used, this biomarker can improve the diagnostic accuracy of acute heart failure in patients presenting with ambiguous or confusing symptoms[5]
- D-dimer in venous thromboembolism VTE – a reliable and sensitive biomarker for the exclusion of PE or DVT diagnosis in symptomatic outpatients[2]

"The next decade will undoubtedly see a vibrant co-evolution of cardiac biomarkers and POC testing as the vanguard of cardiac diagnostics"

McDonnell, B., et al., Clinical Biochemistry 2009[5]

"Vein to Brain" in less than 15 minutes

Simple three step testing for rapid results

Insert strip

Apply sample

Read the result

A blood sample can be analyzed on the spot using the **cobas h** 232 POC system and accurate results will be delivered in only 15 minutes.

cobas h 232 POC system is easy to use

- No sample preparation
- Automatic calibration
- No complicated setup procedures: intuitive, icon-based interface
- Maintenance-free

The National Academy of Clinical Biochemistry guidelines recommend:

- *"the laboratory should perform cardiac marker testing with a turnaround time (TAT) of 60 minutes, optimally 30 minutes or less. The TAT is defined as the time from blood collection to the reporting of results."*

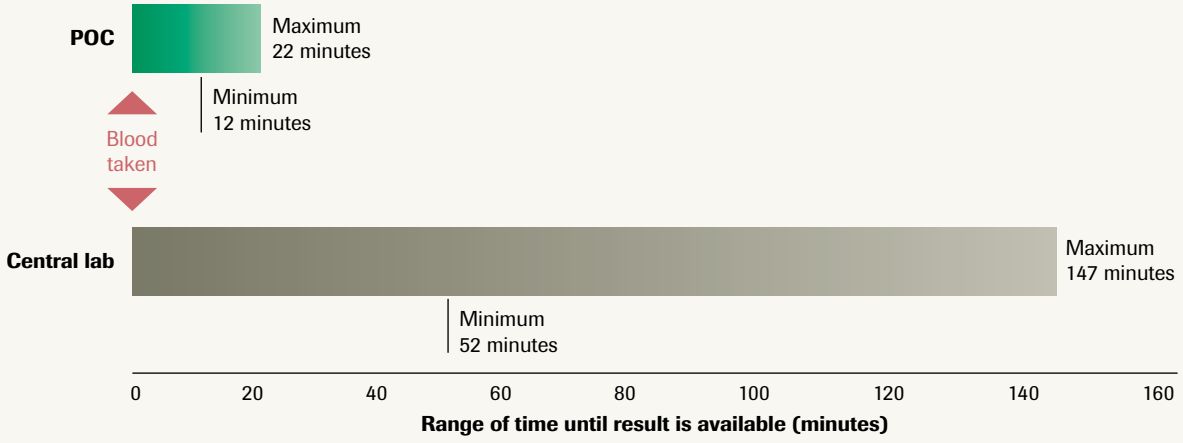
- *"Institutions that cannot consistently deliver cardiac TATs of one hour or less should implement POC testing devices."* [6]

Point of Care (POC) and efficiency

- POC cardiac marker analysis is proven to improve turnaround time compared to central laboratory measurement[7]

Comparison of POC and central laboratory turnaround times in cardiac markers

The overall gain in time from POC testing compared with central laboratory measurements was 65 minutes (range 34-135 minutes).



cobas h 232 POC system

Realizing POC benefits

- Enables fast patient stratification
- Accelerates moving patients to the right place
- Ensures valuable resources are focused on those patients who need it the most
- Cost-effective due to improvements in workflow[8,9]

Vital time that allows you to deal with other immediate patient issues
- Breathing and oxygenation
- Pain relief
- Hydration
- BP monitoring

Designed with POC in mind

cobas h 232 POC system is highly versatile
- Lightweight, compact and portable: the instrument can be moved once the test strip has fully absorbed the sample
- Stand alone or connected to IT system

cobas h 232 POC system is reliable
- Comparable to Roche Laboratory methods:[1-4] clinically validated tests
- Patient and user ID help the proper measurement documentation

Information for expert analysis

Nothing can replace your experience and diagnostic skills, but rapid results delivered by **cobas h** 232 POC system can augment the decision making process and give comfort to your patient

Expertise to rule in:
Identify the critically ill patient

Expertise to rule out:
Reassure the worried, non-critical patient

Reassurance for the physician, the patient and the family members
Confirmatory diagnosis using selected Cardiac marker tests helps your triage decisions and clarifies next steps:

- Avoids unnecessary referral to ICU
- Prioritises those patients for whom early intervention is critical

Expertise enhanced

The capabilities of the **cobas h** 232 POC system can be further enhanced when connected to the comprehensive **cobas IT** 1000 data management system:

- Additional functions e.g. remote set up, patient and operator lists
- Electronic storage of test results in central patient record
- Remote support of POC instruments
- Connection to other data management solutions and the HIS/LIS

References

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3. Derhaschnig, U. et al. for the CARMYT Multicentre Study Group. (2004). Diagnostic efficiency of a Point of Care system for quantitative determination of troponin T and myoglobin in the coronary care unit. *Point of Care; 3(4):* 162-164.
4. Schwab, M. et al. "Evaluation Report: System Performance of the cobas h 232 system" *(www.roche.com/cobas-h232.html).*
5. McDonnell, B. et al. (2009). Cardiac biomarkers and the case for Point of Care testing. *Clinical Biochemistry; 42:* 549-561
6. Nichols, J.H. (2006). National Academy of Clinical Biochemistry Laboratory Medicine Practice Guidelines: evidence based practice for point of care testing. *Washington, DC: AACC Press.*
7. Gaze, D. et al. (2004). The Use of a quantitative Point of Care system greatly reduces the turnaround time of cardiac marker determination. *Point of Care; 3(4):* 156-158.
8. Collinson, P.O. et al. (2004). A prospective randomized controlled trial of Point of Care testing on the coronary care unit. *Ann Clin Biochem; 41:* 397-404
9. Apple, F.S. et al. (2006). Decreasing patient charges following implementation of Point of Care cardiac troponin monitoring in acute coronary syndrome patients in a community hospital cardiology unit. *Clinica Chimica Acta; 370:* 191-195.

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cobas h 232 POC system
Product specifications

Item Material order no	Dimensions (mm)	Screen	Power supply	Connectivity
cobas h 232 POC system 04 901 126 190	L 275 W 102 D 55	Touch screen 78x58 mm	Input: 100-240 Volt/50-60Hz/400mA Output: 7.5 Volt/1.7A CE/TÜV/VDE-GS/UL label	Infrared data port enables data transfer to optional Handheld Base Unit or printer with serial infrared port
cobas h 232 POC system with integr. barcode scanner 04 901 142 190	L 275 W 102 D 55	Touch screen 78x58 mm	Input: 100-240 Volt/50-60Hz/400mA Output: 7.5 Volt/1.7A CE/TÜV/VDE-GS/UL label	Infrared data port enables data transfer to optional Handheld Base Unit or printer with serial infrared port

Parameter Test strip Material order no	Reaction time	Measuring range	Clinical utility	Cut-off / Reference range
Troponin T Roche CARDIAC T Quantitative 04 877 772 190	12 mins	0.03-2 ng/mL (quantitative range 0.1-2 ng/mL)	Diagnosis of acute coronary syndrome and myocardial infarction	< 0.03 ng/mL – low risk 0.03-0.1 ng/mL – medium risk > 0.1 ng/mL – high risk
CK-MB Roche CARDIAC CK-MB 04 877 900 190	12 mins	1.0-40 ng/mL	Diagnosis of acute coronary syndrome and myocardial infarction, assessment of re-infarction	Female 4 ng/mL* Male 7 ng/mL*
Myoglobin Roche CARDIAC M 04 877 799 190	8 mins	30-700 ng/mL	Early marker of myocardial damage to assist in diagnosis of acute coronary syndrome and myocardial infarction	Female 7 ng/mL - 64 ng/mL Male 16 ng/mL - 76 ng/mL
D-dimer Roche CARDIAC D-Dimer 04 877 802 190	8 mins	0.1-4.0 µg/mL	Exclusion of deep vein thrombosis and pulmonary embolism	0.5 µg/mL
NT-proBNP Roche CARDIAC proBNP 04 877 845 190	12 mins	60-3000 pg/mL	Aid in diagnosis of patients with suspected heart failure, in monitoring of patients with compensated left ventricular dysfunction and in risk stratification of patients with acute coronary syndromes	Exclusion of non-acute heart failure < 125 pg/mL Exclusion of acute heart failure < 300 pg/mL Consideration of age-stratified cut-points for diagnosis (=CHF likely considering confounding factors) Patient age — NT-proBNP value < 50 — > 450 pg/mL 50-75 — > 900 pg/mL > 75 — > 1800 pg/mL
Extended Range NT-proBNP Roche CARDIAC proBNP+ 05 533 643 190	12 mins	60-9000 pg/mL	Aid in diagnosis of patients with suspected heart failure, in monitoring of patients with compensated left ventricular dysfunction and in risk stratification of patients with acute coronary syndromes	Exclusion of non-acute heart failure < 125 pg/mL Exclusion of acute heart failure < 300 pg/mL Consideration of age-stratified cut-points for diagnosis (=CHF likely considering confounding factors) Patient age — NT-proBNP value < 50 — > 450 pg/mL 50-75 — > 900 pg/mL > 75 — > 1800 pg/mL

** At the 99th percentile of a reference population*

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Quality Controls Material order no	Utility
Roche CARDIAC Control Troponin T 04 890 515 190	Control set for use with Roche CARDIAC T Quantitative (control set for 2 x 6 quality control checks, level 1/2, and code chip)
Roche CARDIAC Control CK-MB 04 890 426 190	Control set for use with Roche CARDIAC CK-MB (control set for 2 x 6 quality control checks, level 1/2, and code chip)
Roche CARDIAC Control Myoglobin 04 890 469 190	Control set for use with Roche CARDIAC M (control set for 2 x 6 quality control checks, level 1/2, and code chip)
Roche CARDIAC Control D-Dimer 04 890 523 190	Control set for use with Roche CARDIAC D-Dimer (control set for 2 x 6 quality control checks, level 1/2, and code chip)
Roche CARDIAC Control proBNP 04 890 493 190	Control set for use with Roche CARDIAC proBNP and Roche CARDIAC proBNP+ (control set for 2 x 6 quality control checks, level 1/2, and code chip)
Roche CARDIAC IQC 04 880 668 190	Reusable control strips to verify the function of the **cobas h** 232 POC system

Accessories Material order no	Utility
Roche CARDIAC Pipettes 11 622 889 190	Dosing device for sample transfer from primary sampling tube. Labelled to show required sample volume
Handheld Battery Pack 04 805 640 001	Rechargeable battery pack for up to 18 measurements

Options Material order no	Utility
Handheld Base Unit/Connectivity Interfaces 04 805 658 001	Battery pack recharging. Data interface. Connectivity: USB and Ethernet port
IT Data Management	Interface to **cobas IT** 1000 data management solution POCT1A – protocol for interfacing to **cobas IT** 1000 data management solution or third party systems as well as LIS/HIS

*The **cobas h** 232 POC system features easy-to-use on-board data management. Through connectivity, results can be made available throughout your site. With a Point of Care data management system, data administration, control over QC and instrument configuration is enabled from a remote point e.g. the laboratory.*

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