

Performs at the same high level you do

*From sample loading to final result, the **cobas**® 4800 System delivers a combination of flexibility, speed, ease of use and robust dependability*





Where high performance meets simplicity

The **cobas**® 4800 System delivers a high-performance combination of ease of use and flexibility for lab efficiency and dependable results.

Reduce hands-on time, maximize walk-away time

A flexible, automated platform for your workflow and throughput demands. Just load sample vials and walk away. The system automatically performs the assay preparation procedure and transfers samples to 96-well plates, ready for PCR amplification and detection.

Automated nucleic acid extraction

Fully automated from multiple specimen types, including swab, urine, and liquid cytology vials.

Reliable real-time PCR system

Multiplex real-time PCR for detecting multiple targets in one reaction, based on LightCycler® technology.

Run your own assays

User Defined Workflow software* (UDF) provides open-mode capabilities so your laboratory can design customized applications that fit your needs.

IT solutions that support you

Bi-directional LIS connectivity

Test ordering can be easier and less prone to transcription errors. Built-in communication components make it easy to connect with a broad variety of LIS providers.

Technicians simply insert barcoded primary vials into the system, and the system automatically queries your LIS to download testing information. System software automatically displays LIS availability and transfer status.

cobas® infinity molecular solution

An intelligent middleware solution that minimizes the time between system implementation and the go-live date by supporting communication with virtually any LIS.

Remote diagnostics support to reduce downtime

Enhanced technical support and service via our secure web connection streamlines troubleshooting.

* For general laboratory use.

More flexibility for your lab

Laboratories today need the flexibility to manage daily workflow and varying throughput demands. They also need to be able to adapt quickly when needs change. The **cobas**[®] 4800 System delivers that flexibility with walk-away sample preparation plus advanced real-time PCR amplification/ detection.

cobas[®] x 480 Instrument Automated sample preparation with built-in technology to ensure quality results



Low maintenance, high efficiency

Save time:

- Less than 10 minutes required for daily or weekly maintenance; no monthly maintenance
- No pipetting into secondary tubes required; accepts multiple primary vial formats, including liquid-based cytology for automatic nucleic acid extraction
- Load-and-go reagents eliminate complex reagent preparation procedures
- Less than 30 minutes of setup time* needed for run of 94 specimens
- Parallel testing in 96-well plate format for flexibility and improved time to result
- No post-run decontamination with bleach solution needed

Minimize errors:

- Barcode reader scans samples as they're loaded, and the system automatically queries LIS to download information for automatically generating a work order—for positive patient ID through the entire run
- Total Aspirate and Dispense Monitoring (TADM) verifies precise sample transfer in real time to help ensure valid results
- CO-RE tip technology for secure tip attachment and precise tip positioning to minimize aerosol production to prevent cross-contamination
- Anti-droplet control (ADC) automatically compensates for volatile reagent vapor in pipette tips by continually monitoring pressure and adding vacuum to tips as needed

Efficiency. Flexibility. Confidence.

The **cobas**® z 480 analyzer is a component of the modular **cobas**® 4800 System and can also exist as a standalone analyzer for automated amplification and detection of clinical and research assays and lab-developed tests. The **cobas** z 480 analyzer offers advanced real-time PCR technology for high-quality results.

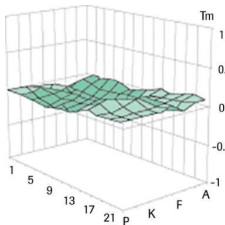
cobas® z 480 Analyzer

Advanced real-time PCR technology for high-quality results

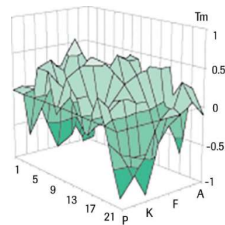


Robust amplification and detection

The **cobas** z 480 analyzer pulls through all of the technological advances of the LightCycler® 480 Instrument. The **cobas** z 480 analyzer provides unmatched temperature homogeneity and advanced optics for rapid amplification and high-quality results.



LightCycler® 480 Instrument



Another real-time PCR instrument

The melting temperature (T_m) of a labeled oligonucleotide was used to demonstrate temperature homogeneity across a multi-well plate. Variation between the measured T_m was plotted for all wells, using the expected T_m as zero. *Roche R&D data on file.*

Rapid, uniform thermal cycling

The unique Therma-Base layer between the heat block and the cooling element provides optimal heat transfer and distribution to all samples for faster, more reproducible results.



Reliable results

The proprietary kinetic algorithm removes ambiguity. PCR curves are automatically checked and validated for consistency, delivering definitive results in high- and low-prevalence populations.

High specificity

- Optimized filter design helps ensure high specificity
- Highly efficient signal excitation and data capture reduce signal artifacts and help ensure data integrity
- 5 optical channels enable multiple target detection in one reaction

High-performance optics

Optics in the **cobas** z 480 Analyzer are engineered to ensure dye-specific signal excitation and emission, and uniform data collection across the entire PCR plate.



Setting the standard for high-performance design

Results integrity

AmpErase[®] enzyme destroys virtually all previously generated amplicon to reduce the risk of carryover contamination.

A proprietary **kinetic algorithm** eliminates the need to examine PCR curves.

An **internal control** is automatically added to each sample during specimen processing to minimize the risk of false-negative results.

Contamination prevention

Intelligent pipetting

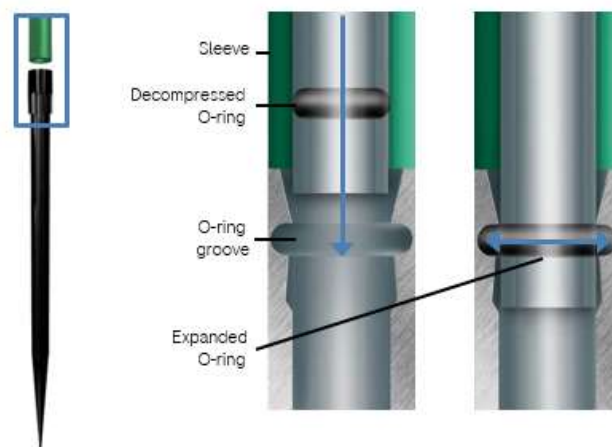
The **cobas**[®] 4800 System incorporates unique pipette tip locking and monitoring technology, including CO-RE tip technology, Total Aspirate and Dispense Monitoring (TADM) and anti-droplet control (ADC) for reliable sample transfer.

TADM

TADM monitors the pressure within each pipette tip during each pipetting cycle to verify transfer and flag problems in real time. Any pressure response that falls outside of the expected range is reported and recorded in a traceable digital log.

Anti-droplet control (ADC)

The **cobas**[®] 4800 System automatically compensates for reagent vapor in the pipette tip by continually monitoring the pressure and adding vacuum to the tip when needed.

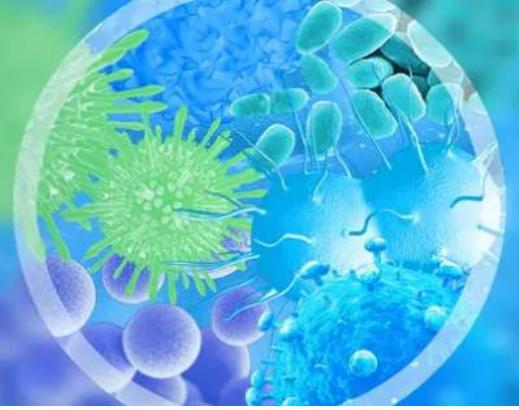


CO-RE tip technology

CO-RE attachment technology actively locks the pipette tips in place with an expanding O-ring. When the tip is released, the O-ring gently decompresses, avoiding the projection of aerosols that could create cross-contamination.

cobas[®] 4800 System assay menu

A broad menu of assays consolidated into one system with the ability to add customized lab-developed tests (LDTs)



Every Roche assay is backed by extensive expertise in test design and optimization, a commitment to robust performance standards, and an unparalleled dedication to thorough data analysis and validation.

The **cobas**[®] 4800 System software enables IVD testing for infectious disease **and** oncology markers on **one** System. This helps deliver maximum workflow flexibility for small and large labs alike.

A broad test menu on a single platform:

Sexual Health and Microbiology (IVD)

cobas[®] HPV Test

cobas[®] CT/NG v2.0 Test

cobas[®] HSV 1 and 2 Test

cobas[®] Cdiff Test

cobas[®] MRSA/SA Test

} Mixed batch capability

Genomics and Oncology (IVD)

cobas[®] 4800 BRAF V600 Mutation Test

cobas[®] EGFR Mutation Test v2

cobas[®] KRAS Mutation Test

cobas[®] Factor II and Factor V Test

cobas[®] EZH2 Mutation Test

User-defined functionality¹

Run your own assays. User Defined (UDF) software allows you to set up and automate lab-developed tests (LDTs) independent of the **cobas**[®] 4800 System assay menu.

Oncology (non-IVD)

cobas[®] PIK3CA Mutation Test (RUO)²

cobas[®] BRAF/NRAS Mutation Test (LSR)³

cobas[®] KRAS Mutation Test v2 (LSR)³

All Genomics and Oncology assays, as well as the User-defined functionality, can be performed with the **cobas**[®] z 480 standalone analyzer.

1. For general laboratory use. 2. For Research Use Only. Not for use in diagnostic procedures. 3. For Life Science Research Only. Not for use in diagnostic procedures.

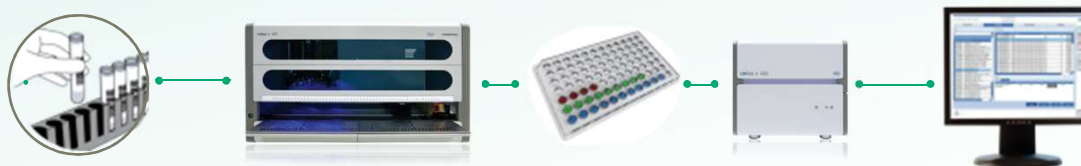
Reduce workload, simplify workflow

Automation reduces hands-on time and makes the **cobas**[®] 4800 System easy to learn and operate. The intuitive graphical interface provides all the necessary instructions. Users are guided through each step, from sample loading to starting a new run.

Load samples, reagents
and consumables

Seal and transfer plate, start PCR run

View results

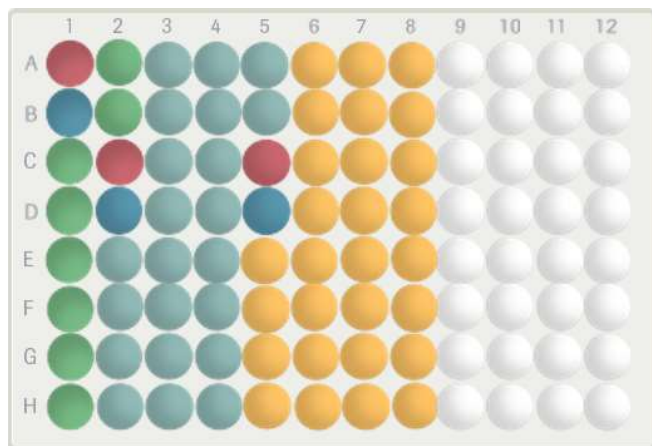


Simple and efficient

The **cobas**[®] 4800 System automates your workflow where you need it most.

- Ready-to-use reagents
- Bi-directional LIS connectivity
- Automated sample ID scanning

Efficiency to perform more runs of different tests per 8-hour shift



Microbiology assays- Mixed batch capability

The **cobas**[®] 4800 System gives you the flexibility to test MRSA/SA, C.diff and HSV 1 and 2 in the same run, prepared from different types of primary vials. You can also run different-sized sample batches.

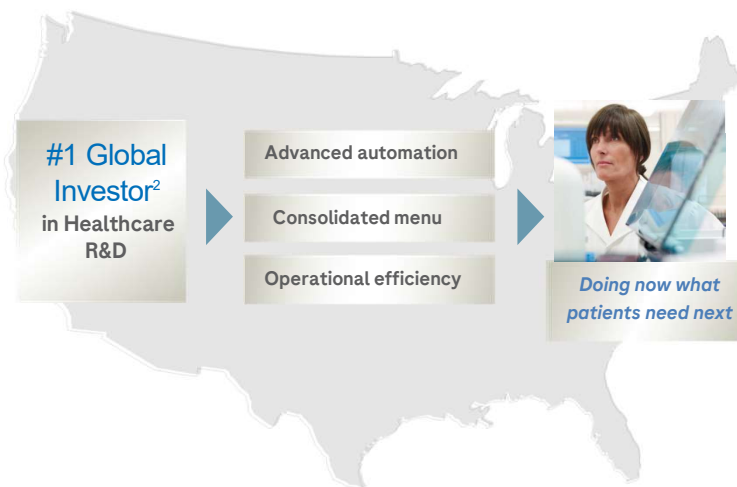
- HSV 1 and 2
- MRSA/SA
- C.diff
- Positive control assay-specific
- Negative control assay-specific

Why partner with Roche?

Roche is ranked number one in company and relationship attributes. Our customers consider Roche as the preferred company to partner with. We strive to understand your needs and challenges, offer transparent communication, co-create strategies to support your business goals, and endeavor to improve patient outcomes¹.

Proven service and support from a trusted leader

The Roche Support Network offers expertise in lab design, proactive maintenance, personalized training, effective go-live management, and experienced product support. One call gives you direct access to a world-class support organization.



Investing in the future

Roche introduced PCR and is still perfecting it every day. We invest heavily in R&D to continuously innovate and evolve our technologies to meet the needs of our customers, and positively impact the lives and well-being of patients. Our goal is to transform the standard of care and stay ahead of evolving medical needs.

1. 2021 survey of 302 US Molecular Laboratory professionals, compared with Abbot, BD, bioMerieux, Cepheid, Hologic, QIAGEN.
2. Roche Annual Report 2021. Chairman's letter to shareholders. Available at: <https://www.roche.com/investors/annualreport21.htm#highlights>. Accessed June 28, 2023.

For more information, contact your Roche Molecular Diagnostics Representative, visit www.usdiagnostics.roche.com or call 1.800.428.5074.

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