

cobas e 411 analyzer

Peace of mind in immunology



cobas e411 analyzer



Sample loading in STAT mode



Ready to load epack

Successor to the Elecsys® 2010, one of the most successful immunoanalyzers ever developed, the **cobas e 411** analyzer is a perfect complement to the **cobas c 311** analyzer.

- The **cobas e** reagent packs offer best-in-class handling convenience and reagent efficiencies for immunochemistry testing with liquid ready-to-use reagents and 60 day average onboard reagent stability
- 9 minute STAT applications for Troponin, CK-MB, Myoglobin, hCG and PTH provide unmatched response times
- As the heart of the **cobas e 411** analyzer, ECL technology delivers the unique combination of high analytical sensitivity, wide measuring ranges and 9 minute STAT applications for unparalleled performance in immunochemistry



Top view of e411 (Bench top)

1 CD-ROM, USB & printer ports enable efficient data management

2 30 continuous random access sample positions with STAT priority

3 Also available rack version with 75 sample positions with STAT priority

4 **cobas®** touchscreen user interface is standardized to other cobas systems

5 18 channels enable use of up to 18 parameters simultaneously

6 Easy removal of disposables via solid waste container

7 Disposable tips and cups eliminate carryover

8 Measuring cell provides unmatched detection using ECL technology

9 Consumables and liquid waste are easily accessible

Full workstation consolidation

- The **cobas e 411** analyzer is designed to deliver accurate results on account of proven ECL technology
- It consolidates routine endocrinology with cardiac, cancer, bone and infectious disease markers

Serum work area integration

- Combined with the **cobas c 311** analyzer, the system processes up to 95% of your serum work area workload
- Work area management solutions integrate sample and data management across systems

Seamless laboratory networking

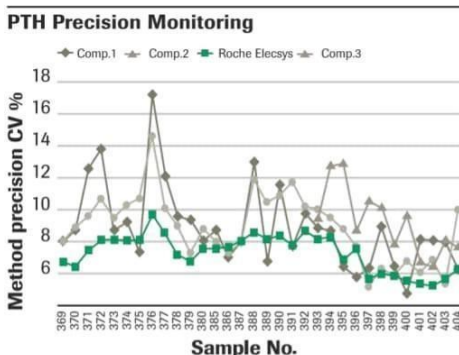
- As part of the cobas modular platform, the **cobas e 411** analyzer offers consistent results with other **cobas e** systems
- Universal reagent carriers and analytical components enable flexible network solutions



Enhanced data review screen

cobas e packs for convenient handling

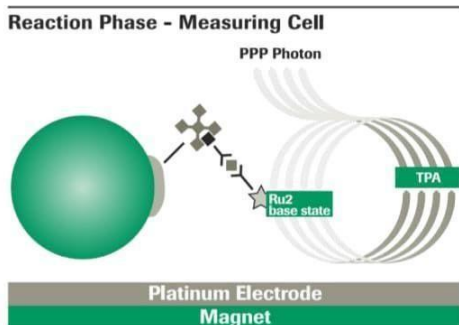
- **cobas e** reagent packs are liquid, ready-to-use and simplify handling
- All-in-one cassette packaging for each parameter combined with calibrators streamlines logistics
- Automatic pack opening/closing ensures longer onboard stability
- Programming-by-loading concept ensures seamless, precise data handling
- Data review screen provides quick result traceability



Elecsys assay performance in external ring-trials

9 min. applications for speed and quality

- Over 96 assays offer comprehensive coverage more than 10 indication areas
- High onboard stability and shelf-life allow continuous availability of both routine and esoteric parameters
- Disposable tips and assay cups for reaction eliminate risk of carryover
- Integrated safety features ensure result integrity



Electrochemiluminescence (ECL) reaction principle

ECL technology: The gold standard

- High analytical sensitivity enables large measuring ranges and low sample volume
 Measuring ranges: Estradiol 5–3,000 pg/mL;
 Progesterone 0.03–60.0 ng/mL;
 Total PSA 0.002–100 ng/mL
 Sample Volume: β-hCG requires 10 µL;
 3rd Gen TSH requires 50µL
- Activation with voltage for a controlled reaction allows high precision to avoid unnecessary repeats and reruns
- Short incubation time enables the timely availability of innovative applications

cobase411 analyzer

Assay Menu⁺

Thyroid function

Anti-TG
Anti-TPO
Anti-TSHR
Calcitonin
FT3 III
FT4 II
T3
T4
T-Uptake
Tg II
Tg Confirmatory Test
TSH

Fertility / hormones

ACTH
C peptide
Cortisol II
DHEA-S
Estradiol III
FSH
hCG+β
hCG STAT
Insulin
LH
Progesterone
Prolactin
SHBG
Testosterone
AMH

Maternal care

free β hCG
PAPP-A
PIGF
sFLT-1

Rheumatoid Arthritis

Anti-CCP

Immuno Suppressive Drug

Tacrolimus
Cyclosporine
Sirolimus
Everolimus

Tumor markers

AFP
CA 125 II
CA 15-3
CA 19-9
CA 72-4
CEA
CYFRA 21-1
free PSA
NSE
total PSA
Pro GRP
He4
SCC*

Cardiac

CK-MB (mass)
CK-MB (mass) STAT
Digoxin
Digitoxin
Myoglobin
Myoglobin STAT
NT-proBNP
Troponin T
Troponin T hs
Troponin T hs STAT

Anemia

Ferritin
Folate III
RBC Folate
Vitamin B12

Critical care

IL6
Procalcitonin
S100

Infectious diseases

Anti-HAV
Anti-HAV IgM
Anti-HBc
Anti-HBc IgM*
Anti-HBe
Anti-HBs II*
Anti-HCV II
HBeAg
HBsAg II
HBsAg confirmatory*
HbsAg II quant
CMV IgG Avidity
CMV IgM
CMV IgG
HSV-1 IgG
HSV-2 IgG
HIV Antigen confirmatory*
HIV Antigen
Syphilis
HIV combi PT
Rubella IgG
Rubella IgM
Toxo IgG Avidity
Toxo IgM
Toxo IgG

Bone markers

β-CrossLaps
Vitamin D Total
Intact PTH
N-MID Osteocalcin
P1NP
PTH STAT

Others

IgE
hGH

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Technical Specification

System	Fully automated, continuous loading and random access system for immunoassay analysis based on ECL technology. Available as a disk and rack system. System components: Analytical module including touchscreen PC
Test Throughput	Up to 86 tests/hr
Reagent concept	cobas e reagent pack: Ready-to-use reagents Onboard reagent capacity: 18 channels/reagent slots for up to 18 different assays Evaporation protection: Automatic closure of reagent lids
Programmable parameters	Max 60 assays definable via 2D-barcode including all necessary information (programming by loading)
Sample types	Serum, Plasma, Urine and others
Onboard sample capacity	Load/unload capacity: Disk: 30 samples Rack: 75 samples on 15 RD standard 5 position rack Rack types: Routine, STAT, Control, Calibrator STAT handling: Disk: Any unoccupied position on the sample disk Rack: Dedicated STAT port on rack feeder
Sample container types	Primary tubes: 5–10 mL; 16x100, 16x75, 13x100, 13x75 mm Sample cup: 2.5 mL Cups on tube
Sample volume	10 to 50 µL per test, depending on assay protocol
Sample probe	Disposable tips for individual sample to avoid carry over; Sample clot detection; Liquid level detection
Sample barcode types	PDF417, Code 128, Codabar (NW 7), Interleaved 2 of 5, Code 39
System interfaces	Touchscreen PC, RS 232 serial interface, bi-directional Standard PC ports (USB, ethernet, serial etc) for other communication devices
Sample database	2,000 results for routine, STAT and controls
Test methods	Pre-defined assay protocols (sandwich, competitive, titration)
Calibration methods	2-point calibration per lot or per cobas e reagent pack
QC methods	Individual QC; Cumulative QC; Preventive QC after calibration
Rerun/repeat/reflex	Rerun, repeat and reflex supported
Electrical requirements	Power requirements: 100–120 VAC 50/60 Hz single phase or 200–240 VAC 50/60 Hz single phase Power consumption: 1,000 VA
Water/waste requirements	Water supply: 3l container Water quality: ≤10µS/cm or ≥0.1 mega Ohm, bacteria-free Liquid waste: 4l container with overflow detection or direct drain Water consumption: Approx. 3l for 250 tests/approx. 12 mL/cycle
Regulatory compliance	GS, CE, UL, C-UL, CB-report and certificate
Operating conditions	Ambient temperature: 8 to 32°C (64.4°F to 89.6°F) Ambient humidity: 20% to 80% Noise output: 60 dbA (stand-by mode), 63 dbA (avg. during operation)
Physical dimensions	Width: 120 to 170 cm (disk/rack) Depth: 73 to 95 cm (disk/rack) Height: 56 cm (w/o PC unit) Weight: Approx. 170 kg (disk) and 210 kg (rack)

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