

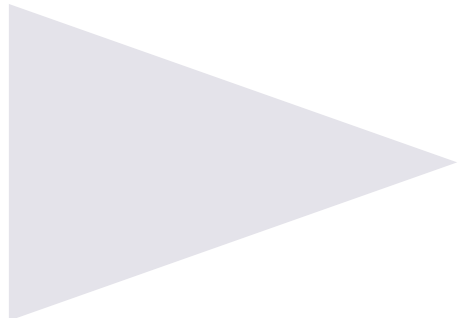
MACCURA CLIA i 800 Introduction



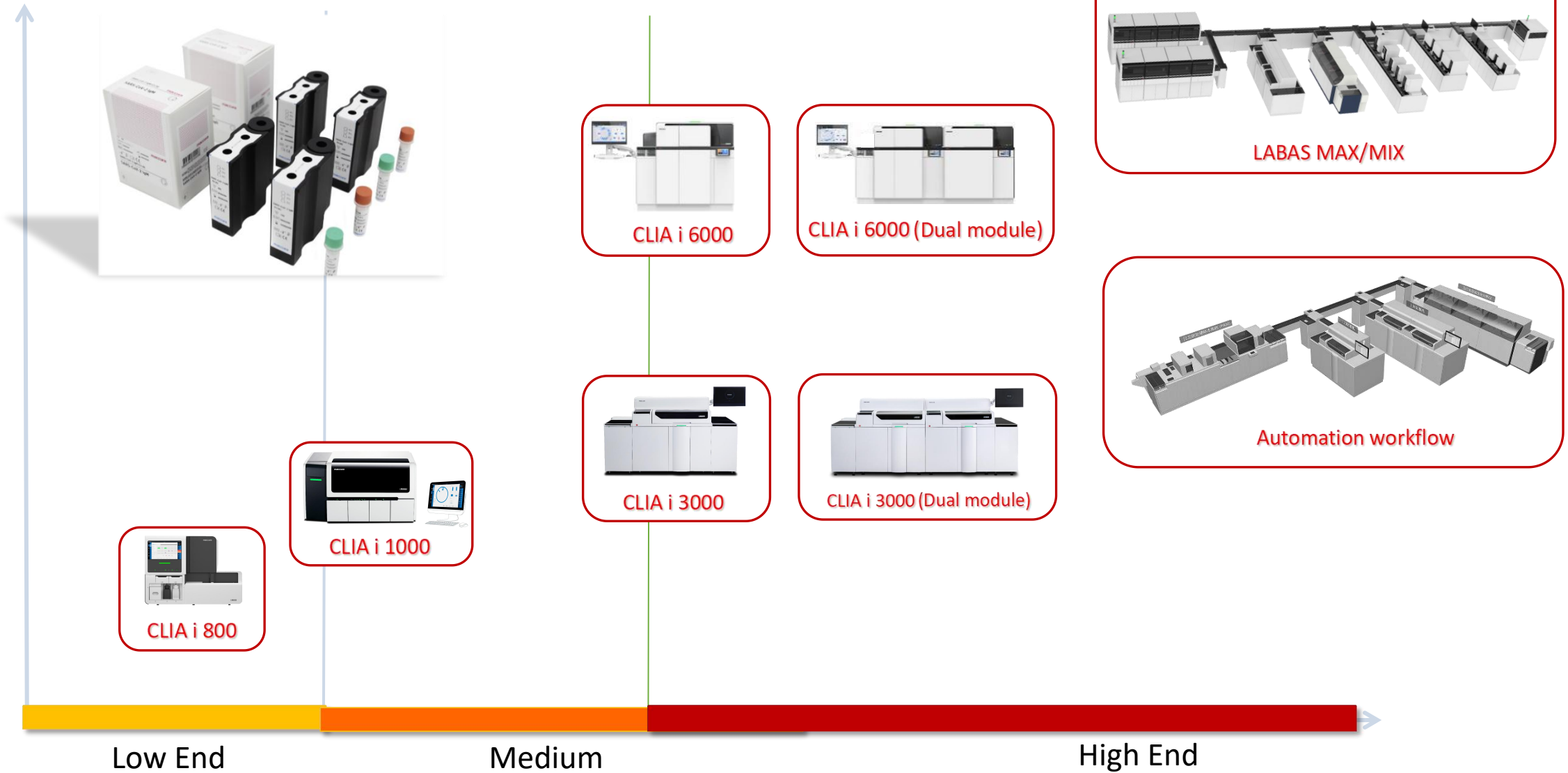
6000+

End Users

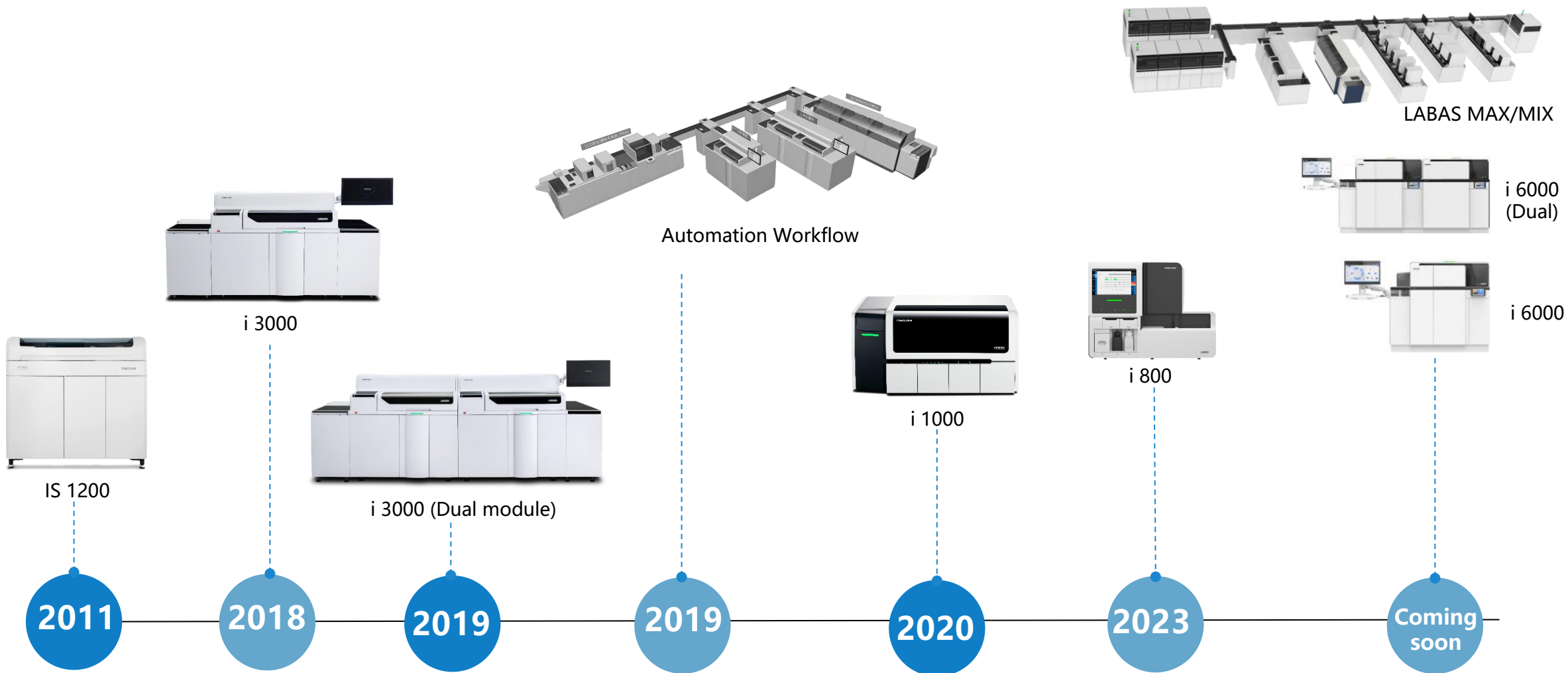
From 2011 ...



Maccura CLIA Layout



Maccura CLIA Layout



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Brief Info.

Key Features

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Principle

Performance

Brief Info.

CHAPTER





Up to **200** tests per hour

Only **14 minutes** to first result

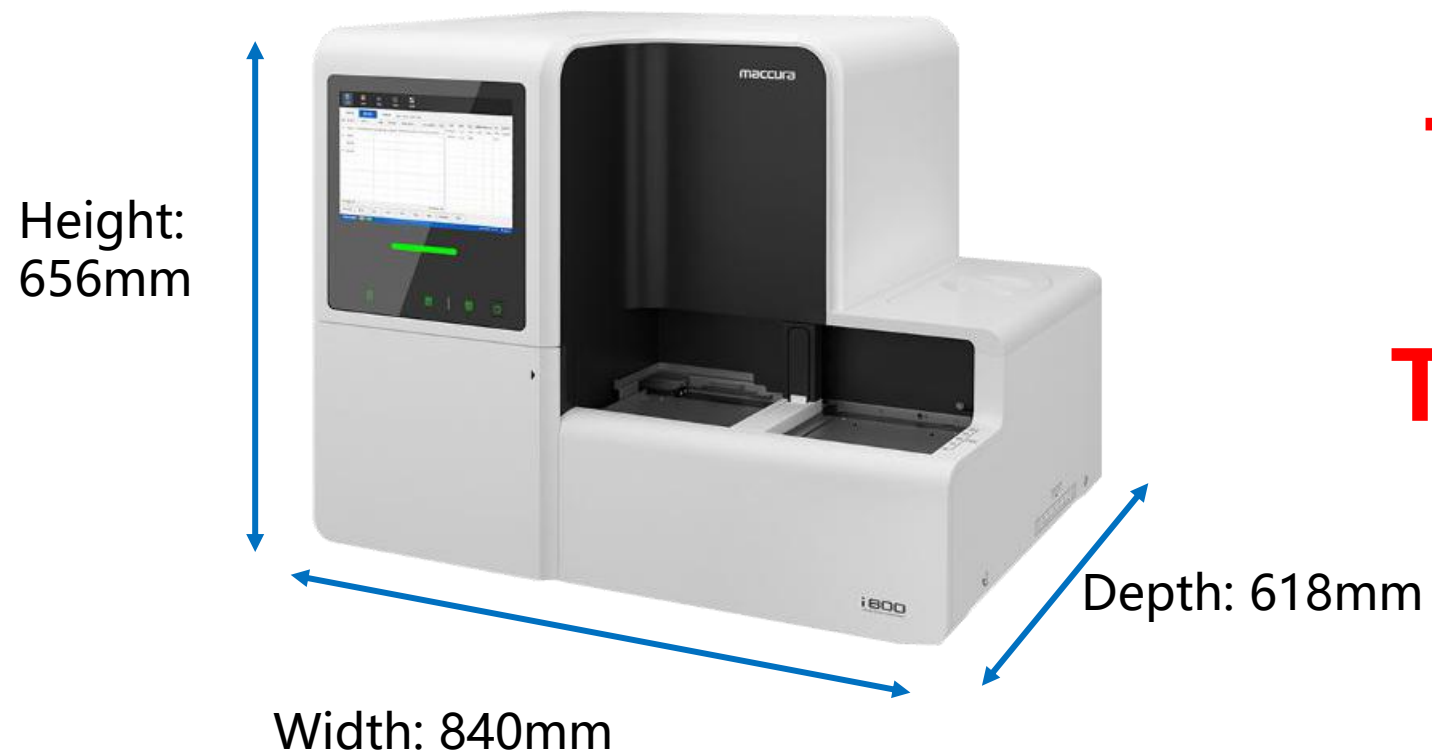
Support **20** online testing

Compact design with only **0.519m²**

Continuous sample loading with **50** positions

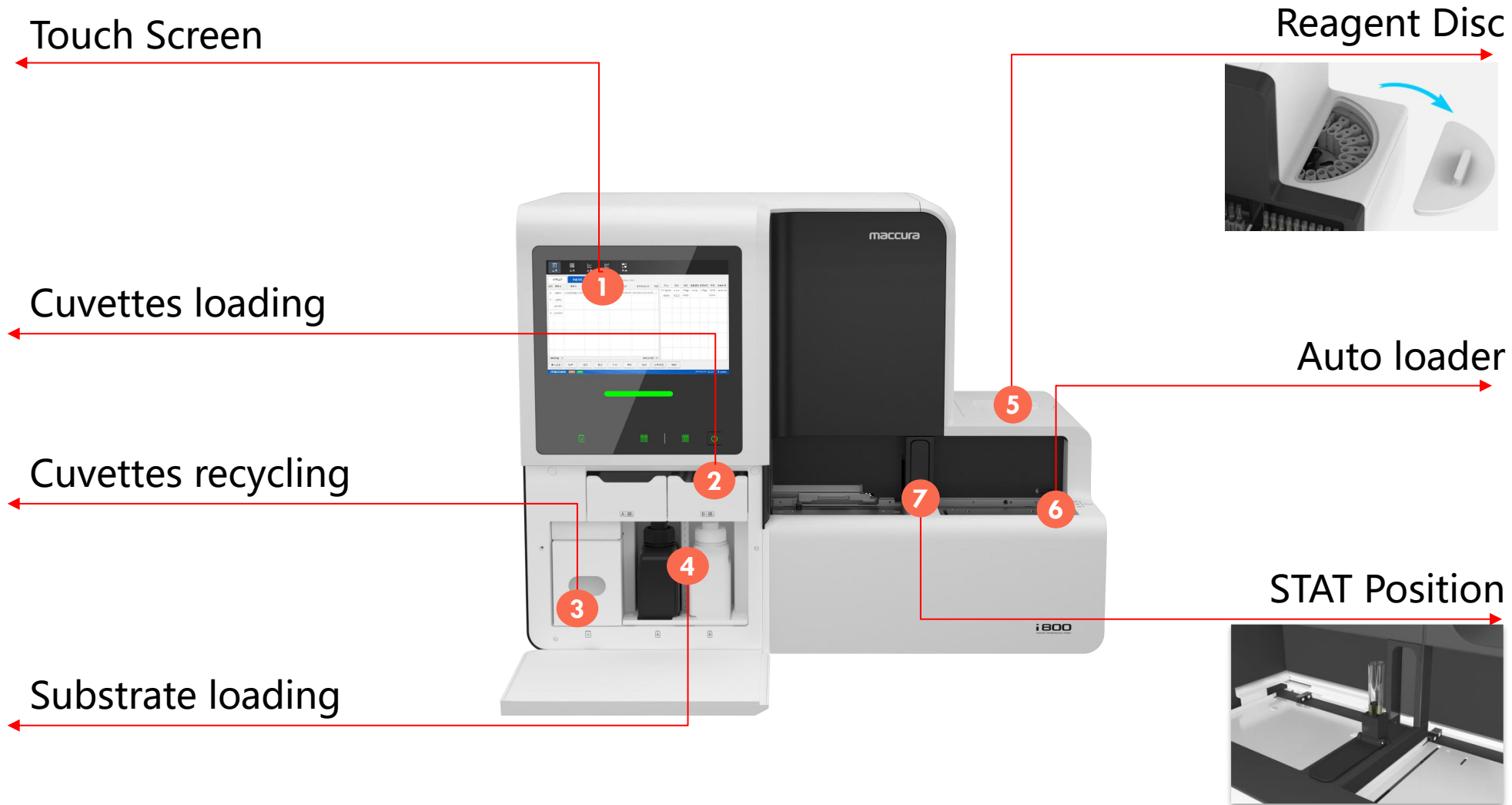
Built-in **touch screen** operation

Dimensions: W*D*H 84.0*61.8*65.6(cm)



**The Fastest
+
The Smallest**

Compact Structure



Principle

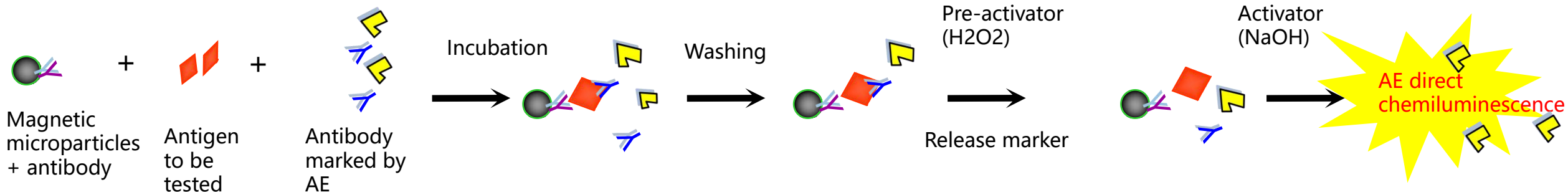
CHAPTER

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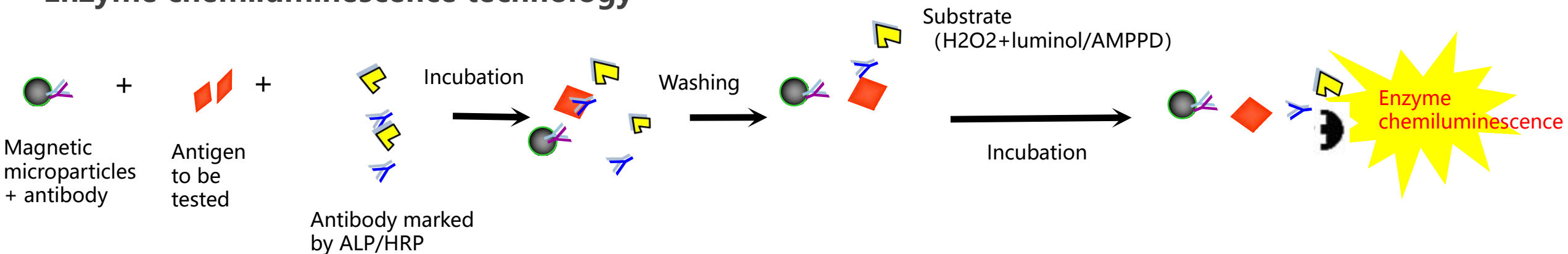
What are the main technologies of CLIA?

Classification	Label technology	Main Manufacturer
Direct Chemiluminescence	Acridinium Ester + H ₂ O ₂ + NaOH	Siemens Advia, Abbott Architect, Maccura
Direct Chemiluminescence	Isoluminol + H ₂ O ₂ + NaOH	Diasorin, SNIBE
Enzyme Chemiluminescence	ALP-AMPPD	Siemens DPC, Beckman, Mindray, Olympus, Fujirebio
	Luminol + HRP	Johnson, AutoBio, Maccura IS1200
	ALP+CDP-star	Sysmex
Fluorescence	ALP + 4-MUP	Abbott AxSYM, Tosoh, Biomerieux
ECLIA	Ru(bpy) ₃ + TPA	Roche

Acridinium Ester (AE) direct chemiluminescence technology



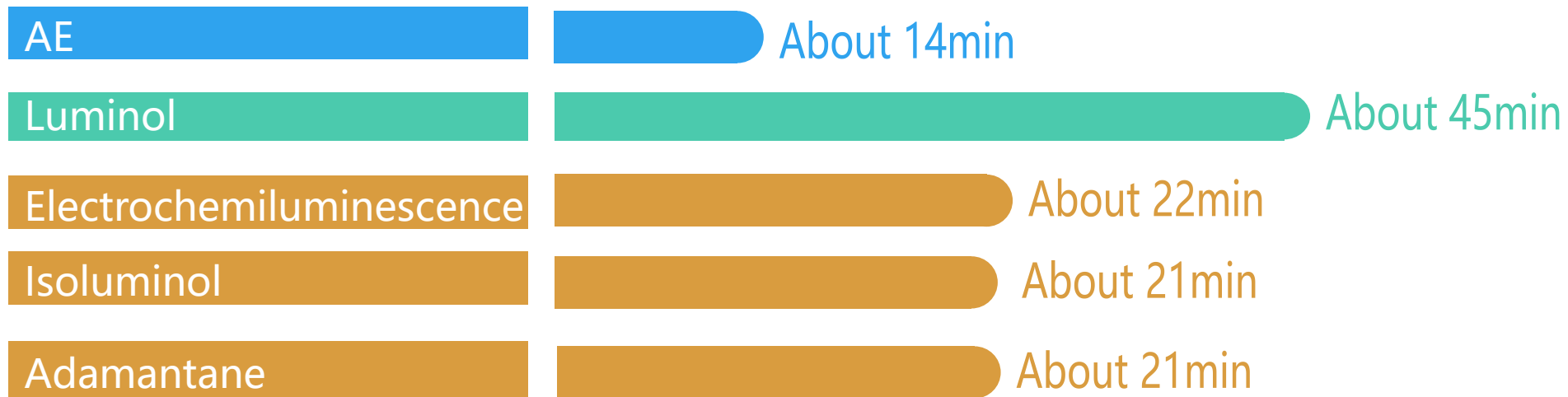
Enzyme chemiluminescence technology



Why we use Acridinium Ester (AE) direct chemiluminescence technology

	Direct CLIA		Enzyme CLIA		E-CLIA
Marker	Isoluminol	AE	HRP	ALP	Ru(bpy) ₃
Substrate	H ₂ O ₂ +NaOH		Luminol or AMPPD		TPA
Max Wavelength	425nm	430nm	425nm	470nm	620nm
Advantages	The whole process of luminescence is short (completed within 3 to 5 seconds), and no catalyst is required		The stability of the enzyme was good, and the light signal was stable and continuous		Good stability, substrate/marker in the electrolytic cell repeatedly used
Disadvantages	The marker is unstable in buffer solution and easily hydrolyzed		The excitation time is long, it takes time for enzymatic reaction. Temperature and pH have a great influence on the activity of enzymes		<ol style="list-style-type: none"> 1. Need to change electrolytic cell regularly 2. Before/after reaction, it takes 40s to 60s to clean electrolytic cell and adjust reaction environment. 3. Recycle the electrolytic cell and increased risk of cross-contamination
Main Player	Siemens, Abbott, Snibe, Maccura		Siemens, Johnson, Mindray, AutoBio		Roche

Why we use Acridinium Ester (AE) direct chemiluminescence technology



Time from standby status to the first result (t)

Key Features

CHAPTER

3

High-Efficiency



- Up to 200 tests per hour
- only 14 minutes to first result
- User-friendly touch screen operation

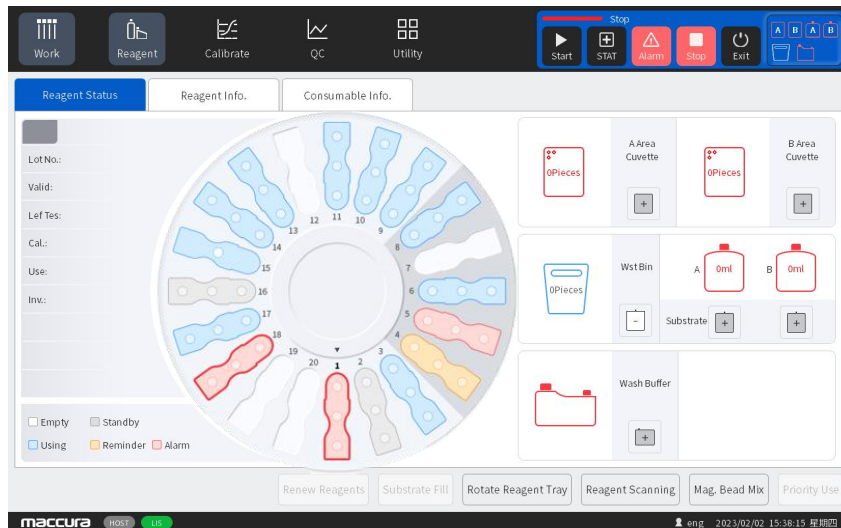


Utility-touch screen



- Built in sensitive **10.4-inch** HD touch screen
- Intuitive navigation menu, **easy to use**
- Only 1 or 2 clicks to access main interface
- Intelligent software:

- Smart QC scanning
- Reagent/consumable status monitoring
- Reaction process monitoring and count down



Utility-reagent capacity



- 20 refrigerated reagent positions
- Temperature: 2~8°C

Large capacity avoid frequent reagent changes.
Could expand more items in future.

- Online reagent replacement without interrupt
- RFID management for reagent info
- Built-in RFID Reader

Machine automatic identify reagent position and
Infor.

Easy to use

Utility-sample loading

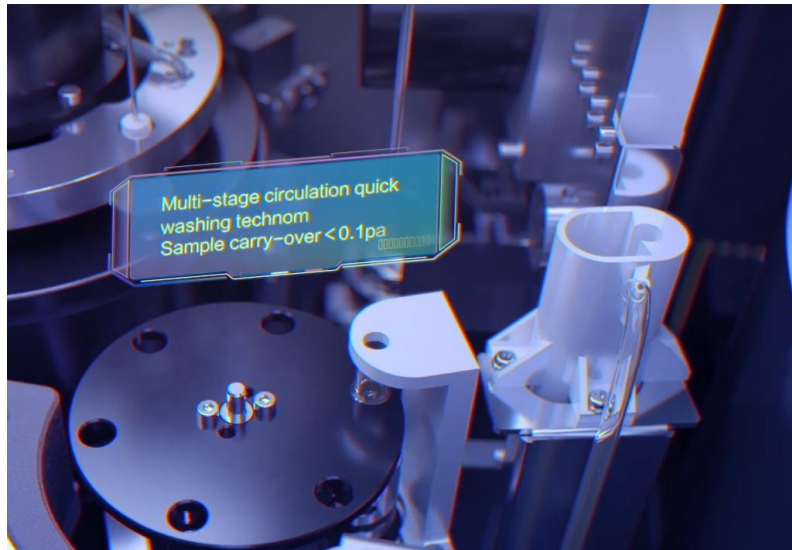


- Supports cyclic loading with 50 positions
- Built-in Barcode scanner
- Dedicated STAT sample position

Continuous sample loading
Cushy sample management



Utility-probe system



- Support online automatic sample dilution
- Sampling needle is equipped with:
 - Liquid level detection
 - Clog detection
 - Bubble detection
 - Collision-protection
- Multi-stage circulation washing system
 - Carry-over < 0.1PPM

Utility-consumables



- Two cuvettes cycling loading position
- One-time for 104*2 cuvettes
- Each cuvette is independent
- Non-contact to cuvette, Avoid personal interference (e.g. Fingerprints affect the light signals)

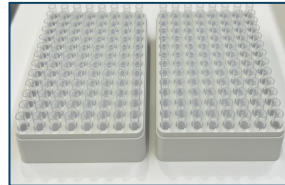


Utility-consumables



- QR code management for substrate
- QR code management for cuvettes
- RFID management for WS Wash Buffer
- Liquid sensor for wash buffer

Real-time monitoring for each consumable
Easy management for all consumables



Utility-reagent capacity



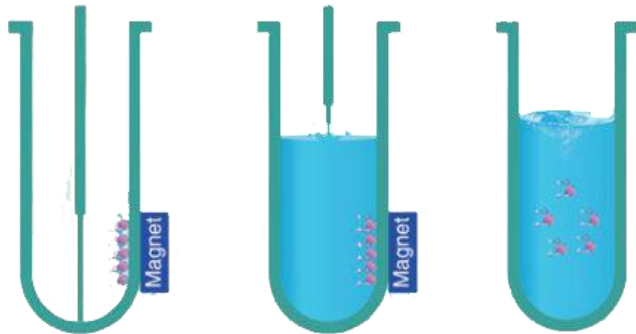
- Waste cuvettes is separated into the solid and liquid
- Minimized biological safety risks
- Waste bin is capable for 400 cuvettes

Technology-enhanced

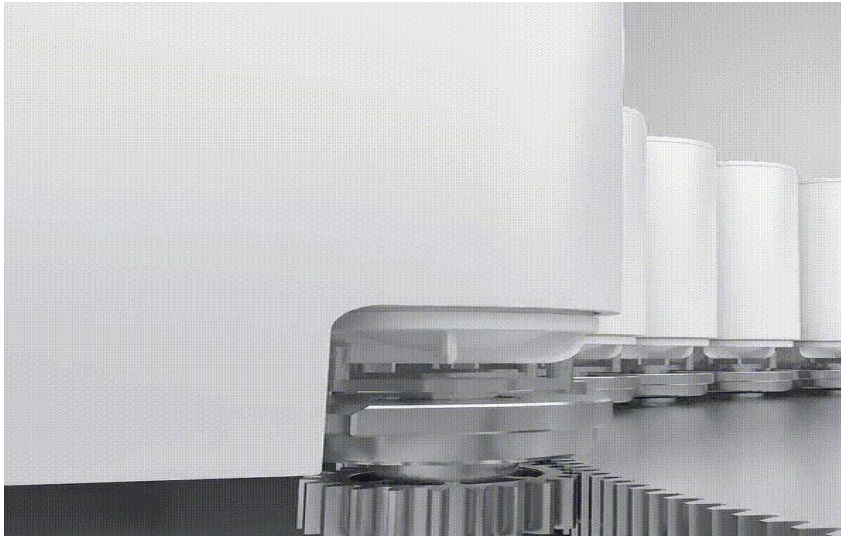


Multiple magnetic separation technology

- 4-step separation washing
- Patented magnetic field design, minimize the magnetic beads' loss.
- Continuous incubation during the washing



Technology-enhanced



Reagent System

- Dust and evaporation proof
- Biotin-Avidin System improve the sensitivity
- Online real-time mixing for magnetic bead



Technology-enhanced



Reaction System

- Non-contact vortex mixing system can reduce carryover
- Signal detector (PMT) no need maintenance, and extra setting.
- Stable temperature control
 - Incubation temperature: $37 \pm 0.5^{\circ}\text{C}$
 - Preheating for Washing solution and substrate, to ensure accurate results

Reagent Menu

TORCH

- ❑ TOXO IgG
- ❑ TOXO IgM
- ❑ Rubella IgG
- ❑ Rubella IgM
- ❑ CMV IgG
- ❑ CMV IgM
- ❑ HSV-1 IgG
- ❑ HSV-2 IgG
- ❑ HSV-1 IgM
- ❑ HSV-2 IgM

Infectious Disease

- ❑ HBsAg
- ❑ HBsAb
- ❑ HBeAg
- ❑ HBeAb
- ❑ HBcAb
- ❑ HIV Ag/Ab
- ❑ Anti-HCV
- ❑ Anti-TP
- ❑ HBV preS1-Ag
- ❑ Anti-HBc IgM
- ❑ Chagas
- ❑ HTLV
- ❑ Covid-19 IgG
- ❑ Covid-19 IgM
- ❑ Covid-19 Nab

Hypertension

- ❑ ALD
- ❑ Cortisol
- ❑ Renin
- ❑ ACTH

Bone metabolism

- ❑ iPTH
- ❑ 25-OH Vitamin D
- ❑ Calcitonin

Thyroid

- ❑ TSH
- ❑ TT4
- ❑ TT3
- ❑ FT3
- ❑ FT4
- ❑ Thyroglobulin
- ❑ Anti-TG
- ❑ Anti-TPO

Anemia

- ❑ Ferritin
- ❑ Folic Acid
- ❑ Vitamin B12

Hormone

- ❑ LH
- ❑ PRL
- ❑ β -HCG
- ❑ Testosterone
- ❑ Progesterone
- ❑ E2
- ❑ FSH
- ❑ hGH
- ❑ AMH
- ❑ Insulin
- ❑ C-peptide

Reagent Menu

Cardiac

- CK-MB
- cTnl
- HS-cTnl
- HS-cTnT
- Myo
- NT-proBNP
- BNP
- GDF-15
- HS-CRP
- D-Dimer

Tumor Markers

- AFP
- CEA
- TPSA
- FPSA
- CA 125
- CA 15-3
- CA 19-9
- CA 50
- CA 724
- CA 242
- CYFRA21-1
- pro-GRP
- SCC
- NSE
- HE4
- PG I
- PG II

Autoimmune

- Anti-Jo-1
- Anti-Sm/RNP
- Anti-Sm
- Anti-SSA(Ro60)
- Anti-SSB(La)
- Anti-Nuc
- Anti-CENP-B
- AMA-M2
- Anti-dsDNA
- Anti-ScI-70
- Anti-Rib-P
- Anti-SSA(Ro52)
- Anti-histone
- Anti-PM-ScI
- Anti-PCNA

Inflammation

- IL-6
- PCT
- Total IgE

Rheumatoid

- Anti-CCP
- RF
- RF IgM
- RF IgG
- RF IgA

Reagent Advantages

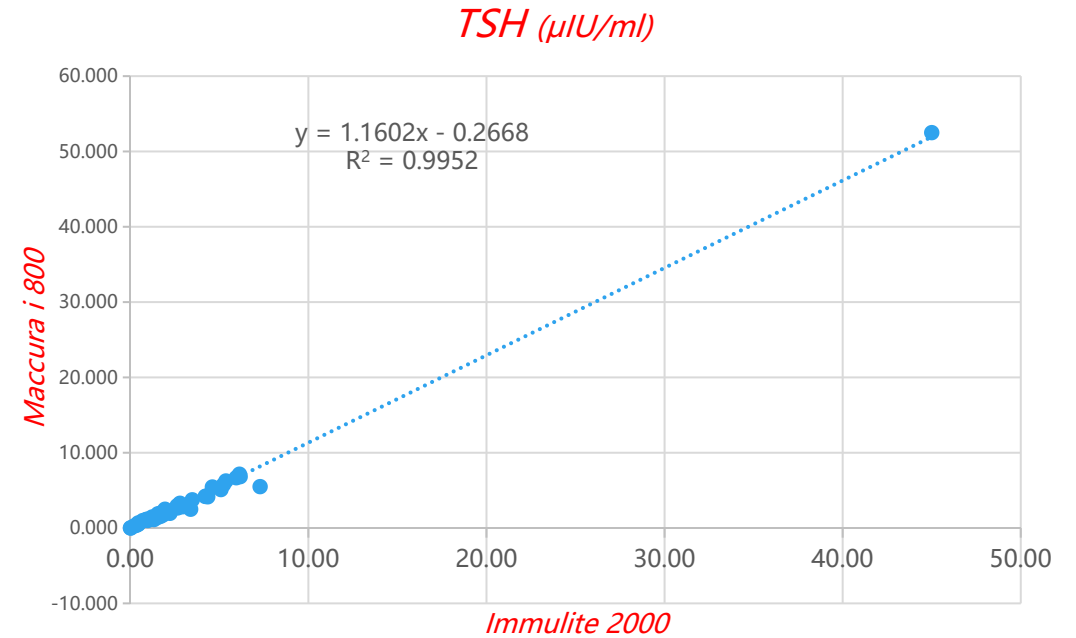
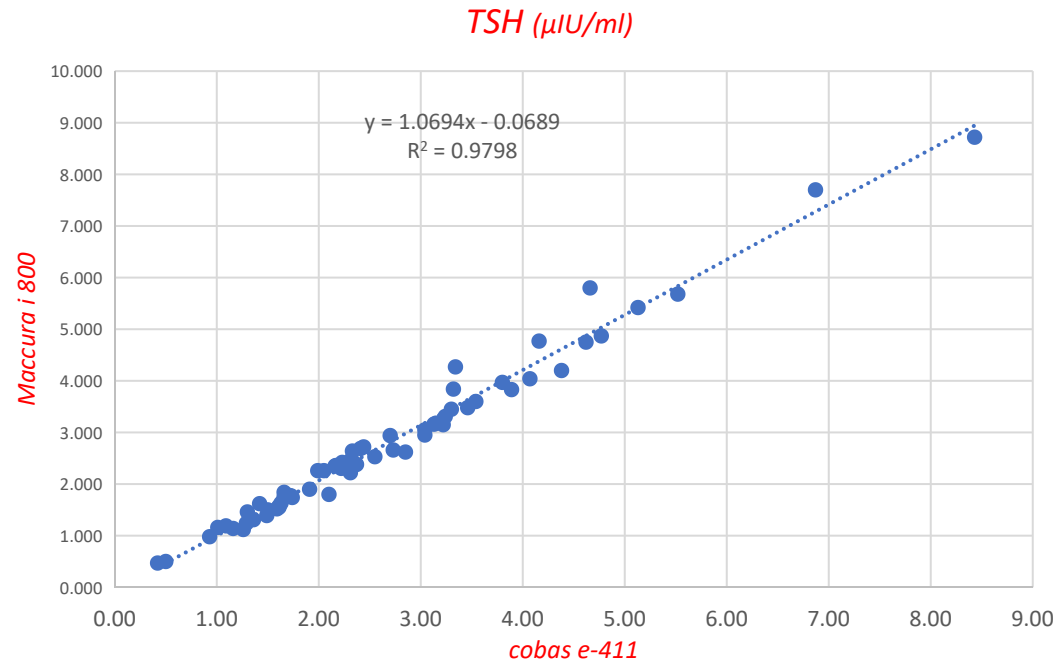
- The onboard stability of All Maccura reagents is no less than 35 days.
- Long Shelf-life reagents with 12 months, 15 months(such as TT3,TT4,FT3,FT4,PRL,etc) or 18 months (such as HbsAg, HIV, Anti-HCV, TSH,FSH, β -HCG, Ferritin, T-IgE, iPTH,etc)
- For infectious items, Maccura provide the full Quantitative analysis for HBsAg, HBsAb, HBeAg,HBeAb,HBcAb.
- Support Plasma/Serum samples both, Avoid repeatedly sampling
- Low sample volume required for each testing, especially for Cardiac parameters
- Wide linearity range

Performance

CHAPTER

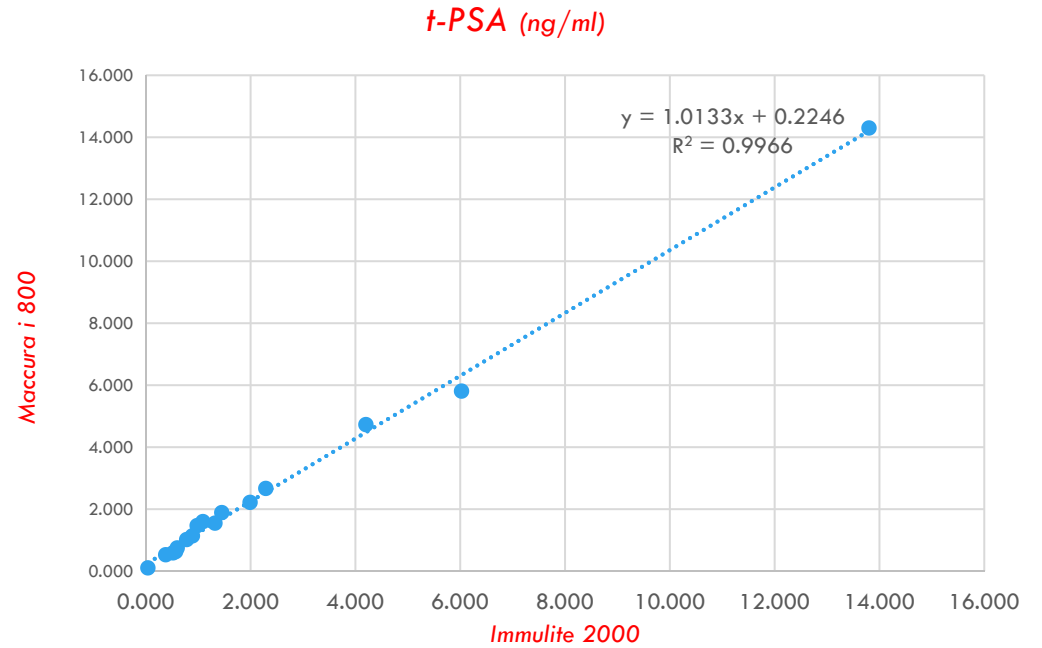
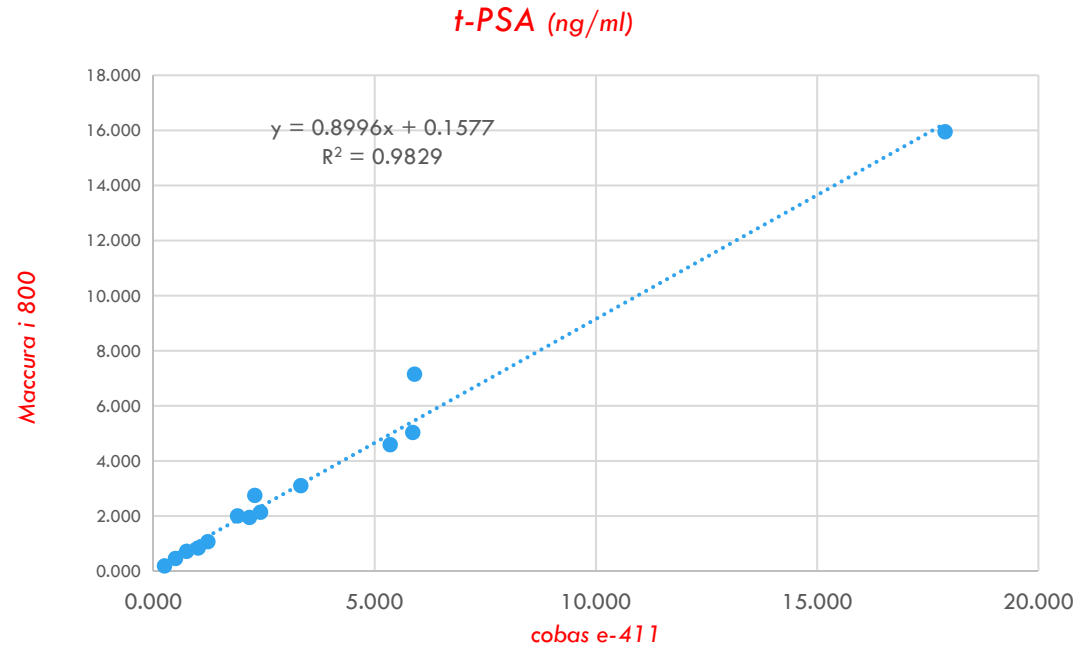
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Performance



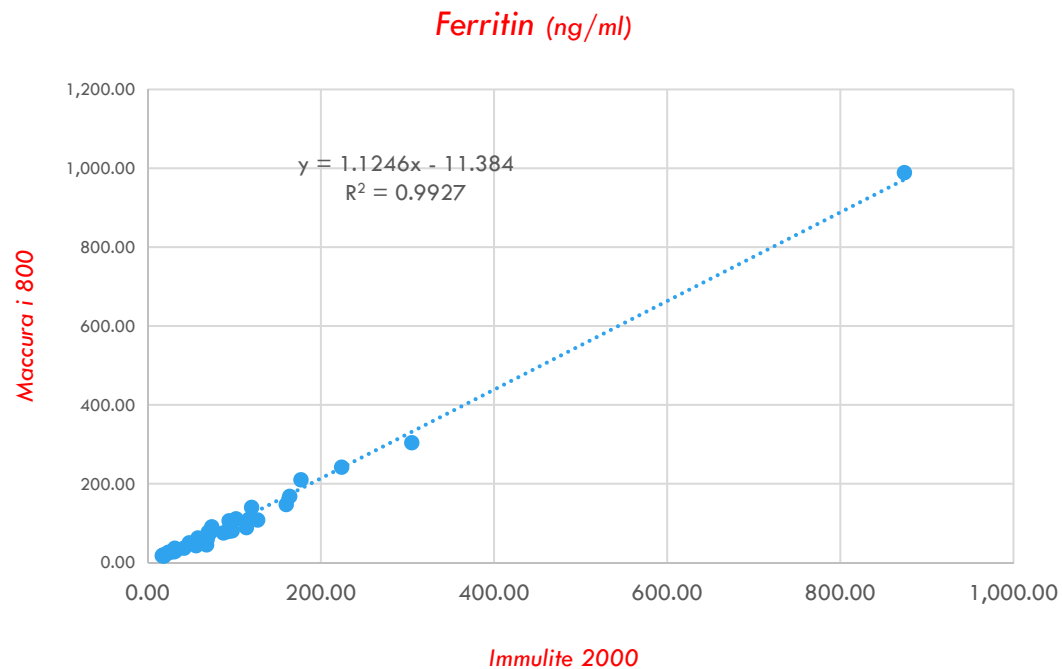
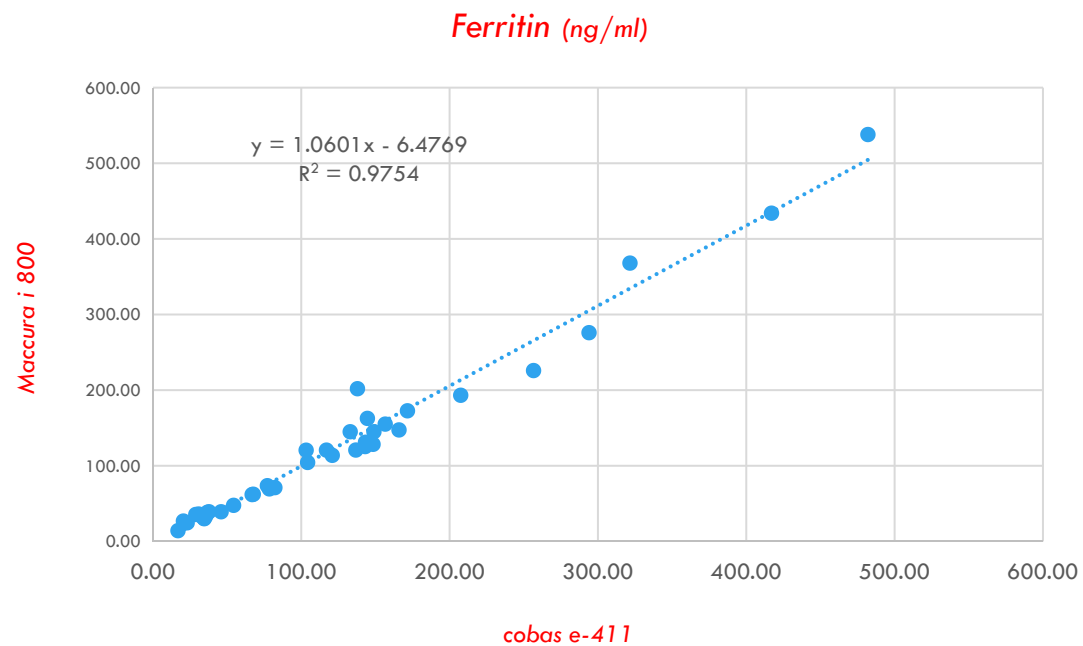
Compare the results from Maccura and Roche Cobas E-411 and Siemens IMMULATE 2000

Performance



Compare the results from Maccura and Roche Cobas E-411 and Siemens IMMULATE 2000

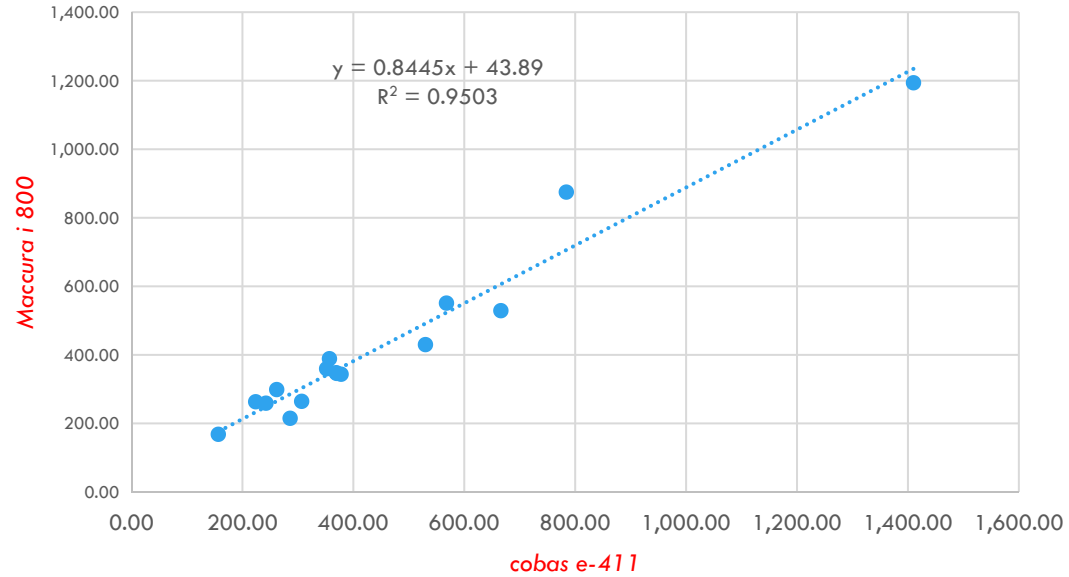
Performance



Compare the results from Maccura and Roche Cobas E-411 and Siemens IMMULATE 2000

Performance

Vit-B12 (Maccura/Lab 3)



Compare the results from Maccura and Roche Cobas E-411

Comparison

Brand	Roche	Abbott	Siemens		Beckman	Maccura	
Model	Cobas E 411	Architect i1000SR	Centaur CP	Immolute 1000	Access 2	i 800	i 1000
Appearance							
Throughput	86 T/H	100 T/H	180 T/H	120 T/H	100 T/H	200 T/H	180 T/H
Time to First Result	9-18 min	15.6 min	15 min	15 min	17 min	14 min	14 min
Sample Positions	75	65	84	50	60	50	50
Reagent Positions	18	25	15	12	24	20	30
Size (cm)	73*120*56	145*76*125	74*107*81	117*66*48	99*61*47	84*61.8*65.6	120*75.5*67.5
Covering area	0.876 m ²	0.924 m ²	0.792 m ²	0.772 m ²	0.604 m ²	0.519 m²	0.906 m ²
Whether needs external PC	No	optional	Yes	No	Yes	No	Yes

Comparison

Brand	Mindray	YHLO	YHLO	Snibe			Maccura	
Model	CL-900i	iFlash 1200	iFlash 1800	MAGLUMI 800	MAGLUMI 600	X3	i 800	i 1000
Appearance								
Throughput	180T/H	120T/H	180T/H	180T/H	180T/H	200T/H	200T/H	180T/H
Time to First Result	17min	13min	12min	17min	17min	15min	14min	14min
Sample Positions	50	16	50	40	16	72	50	50
Reagent Positions	15	15	20	9	4	20	20	30
Size (cm)	86*74*56	93*71*65	103*75*71	102*72*56	88*56*50	90*75*78	84*61.8 *65.6	120*75.5 *67.5
Covering area	0.636m ²	0.66m ²	0.772m ²	0.734m ²	0.493m ²	0.675m ²	0.519m²	0.906m ²
Whether needs external PC	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

Summary

CHAPTER

5

Compact

Utility

Technology-enhanced

Efficient



The C.U.T.E. Solution for Immunoassay



我,即精准
I'M ACCURATE

The background of the image is a blurred laboratory scene. A glass pipette is positioned diagonally from the top left, with a single drop of liquid hanging from its tip. Below the pipette, several petri dishes are visible, some containing cultures. The overall color palette is a cool, blue-toned gradient, giving it a scientific and professional appearance.

maccura

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Science & Technology Serve Human Health