

ajin

# We are Hilab

## Bringing High-Quality Diagnostic Medicine to All People.

Hilab is a biotech that developed a set of portable, accessible, and reliable point-of-care diagnostic devices that provide results in minutes with the same quality as traditional labs.

Our goal is to deliver a unique and seamless experience for both public and private healthcare sectors.

The results reach the patient within 30 minutes with a single drop of sample blood. For this, we developed an IoT device that performs blood tests and a cloud-based platform that delivers lab reports in real-time.

Our solutions are perfect for point-of-care applications in hospitals, clinics, laboratories, and other healthcare settings. We also can provide support services, particularly in urgent and emergency environments.

Join us in bringing access to quality healthcare to everyone!



**hilab**flow  
Immunochromatography,  
Fluorescence and  
Colorimetry



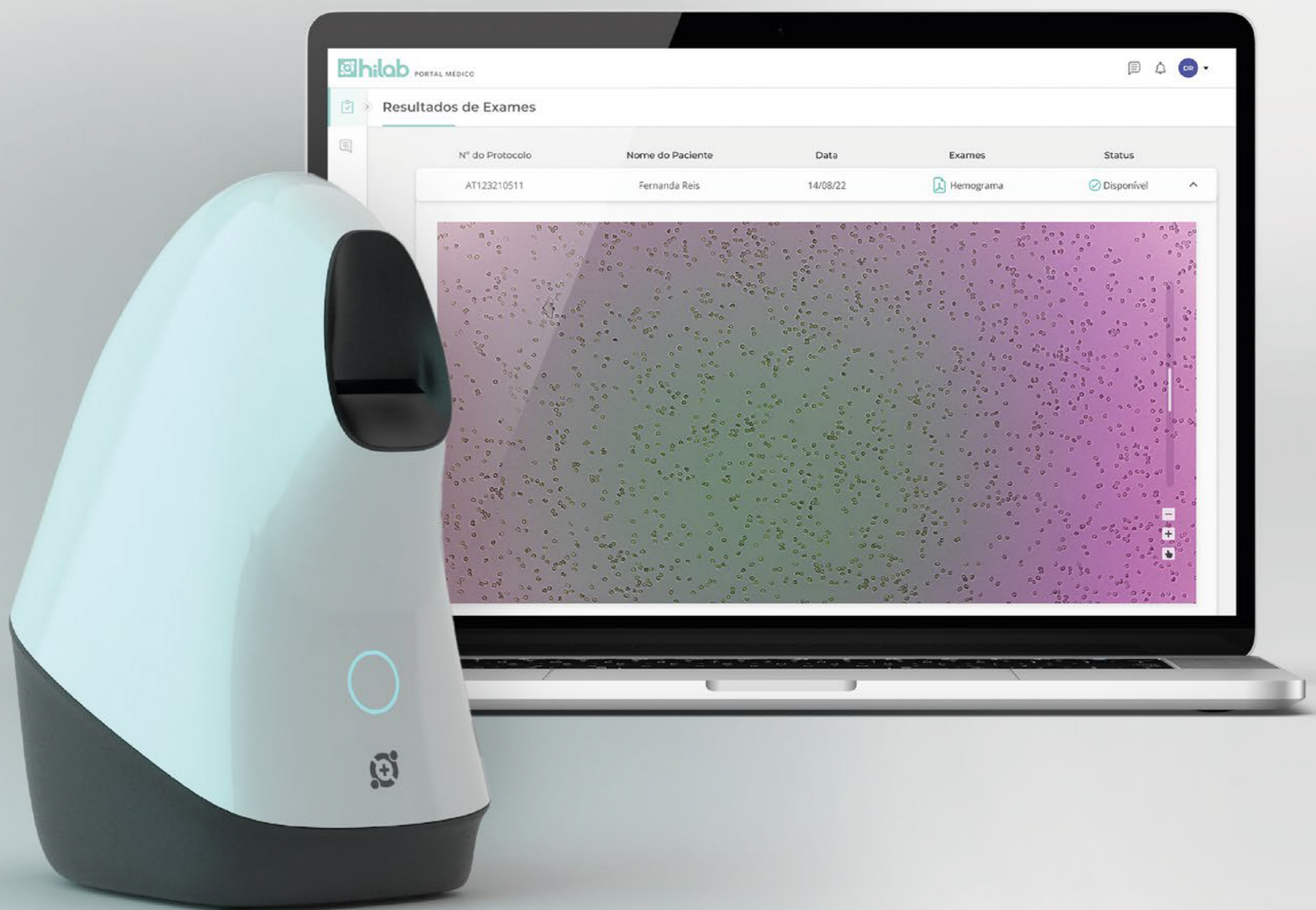
**hilab**lens  
Digital Microscopy and  
spectrophotometry



**hilab**volt  
Electrochemistry

# hilab lens

## THE **SMALLEST** POINT OF CARE CBC TEST IN THE WORLD



Morphological and spectrophotometry analysis



A few drops of blood (30  $\mu$ L)



Result in minutes

# Simple, fast, and reliable

See how our blood test works.



## 1 Digital registration

Before carrying out the test collection, information about the patient's health is filled in the system

## 5 Results

Within 30 minutes, the digital examination report is signed by the specialist and sent by text and email.

## 2 Humanized collection

Afterward, the blood sample is collected by capillary puncture from the fingertips.

## 3 Sample scanning

The sample is placed in a capsule, scanned by the Hilab device, and sent to our clinical analysis laboratory.

## 4 Second opinion

A specialist in hematology has the support of our artificial intelligence to carry out the microscopic analysis of your test.

# Hilab System Device in an Oncological Hospital: A New Clinical Approach for Point of Care CBC Test, Supported by the Internet of Things and Machine Learning



## Analytical Performance Study

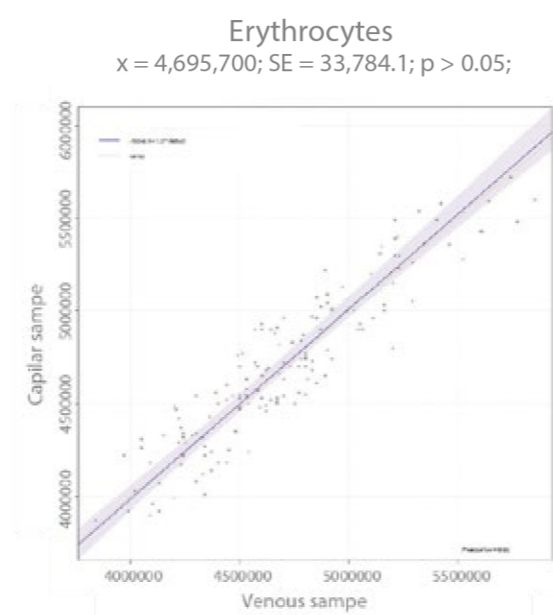
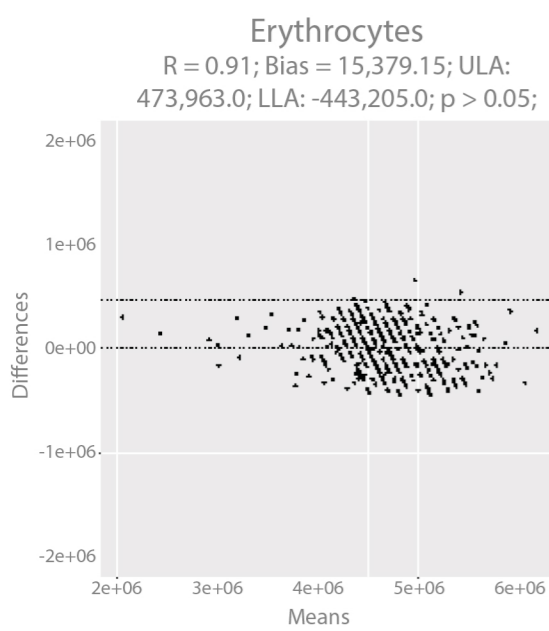
	Accuracy (%)	Specificity (%)	Sensibility (%)
RBC	97.0	98.0	89.7
HB	98.8	99.7	94.0
HT	98.1	97.9	98.3
MCV	96.9	97.2	95.3
MCH	98.1	98.0	98.7
PLT	97.5	97.3	99.2
WBC	98.9	99.3	96.7
NEU	99.1	99.2	98.5
MON	98.9	99.9	99.9
LINF	98.7	99.3	95.1
EOS/BAS	98.0	99.0	89.0



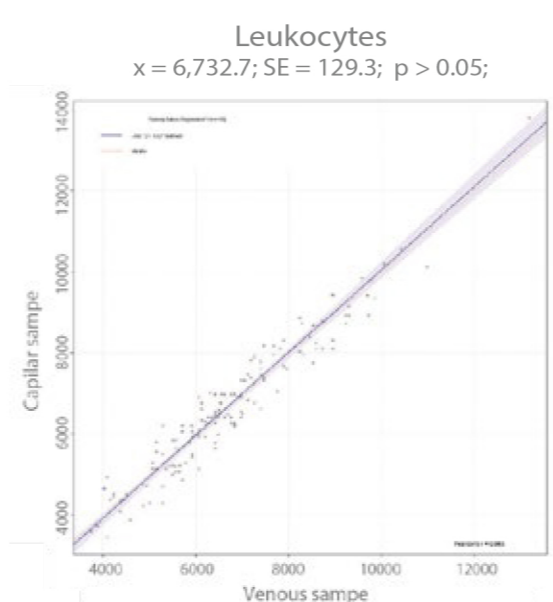
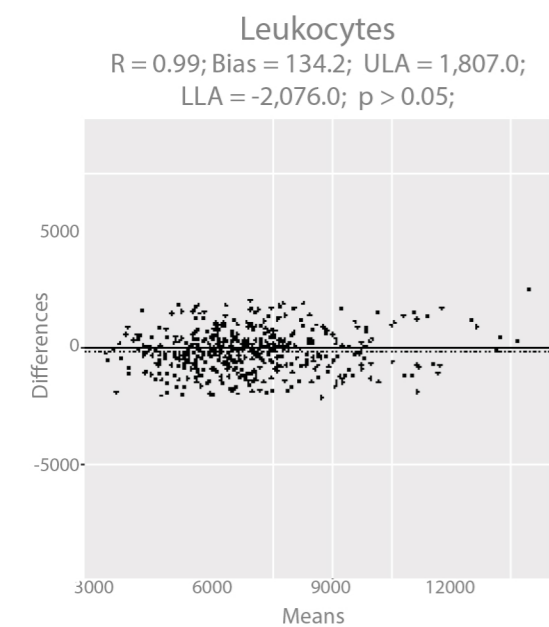
## hilab lens

- ANVISA: 80583710047
- Scientifically proven effectiveness publish in
- Diagnostics and Nature Scientific Reports
- Gold Standard Diagnosis in all samples
- Finger prick or venous collection: 30  $\mu$ L
- Sample type: whole blood
- Differentiation of 4 WBC populations
- 100% remote analysis
- Second opinion: our artificial intelligence with the support of specialists in hematology
- Remote external and internal quality controls
- Online automatic based calibration
- 10x magnification
- Resolution (px) 2592 x1944
- Resolution ( $\mu$ m/px) 0.528
- Spectrum range of 405 to 690 nm
- Dimensions: 153 x 99 x 197 mm (L x W x H)
- Weight: 500g

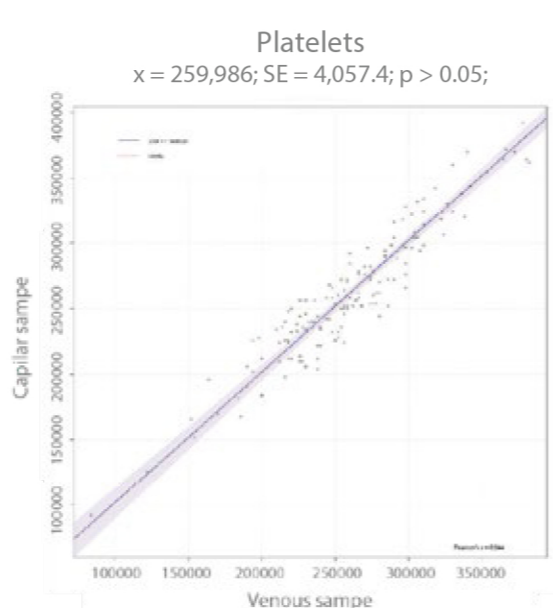
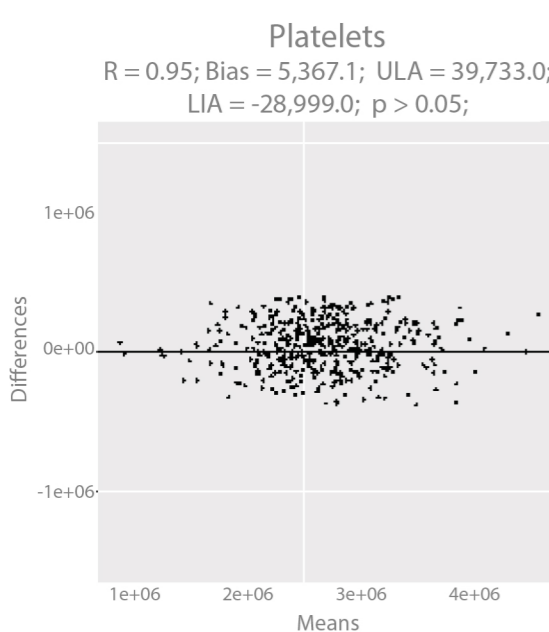
### RBC



### WBC



### PLT



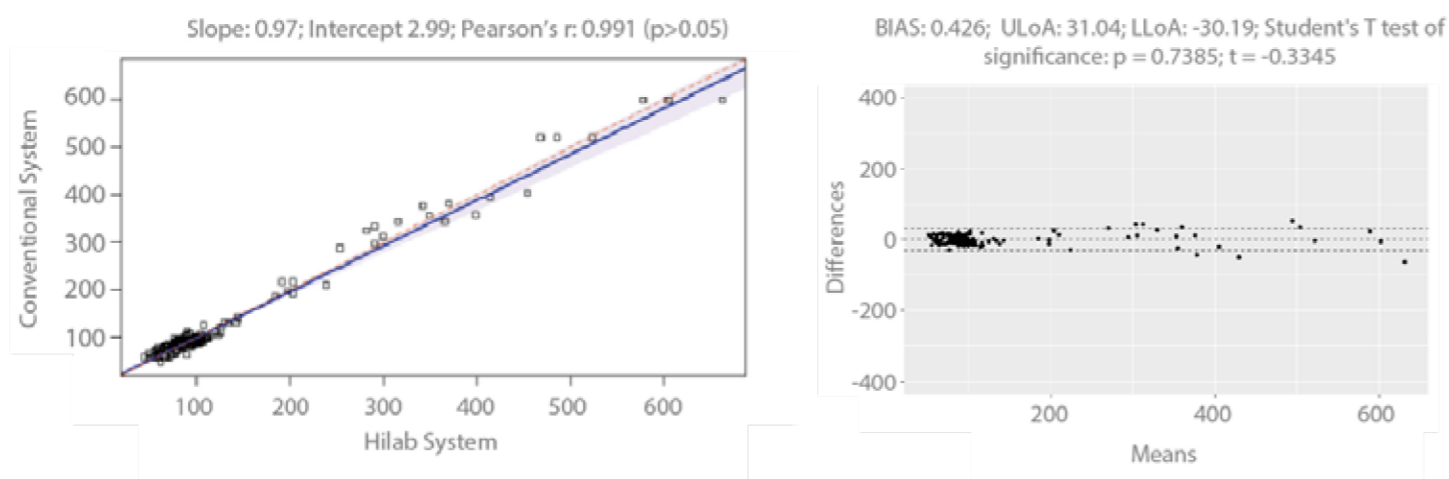
# Point of care Electrochemical Analyzer



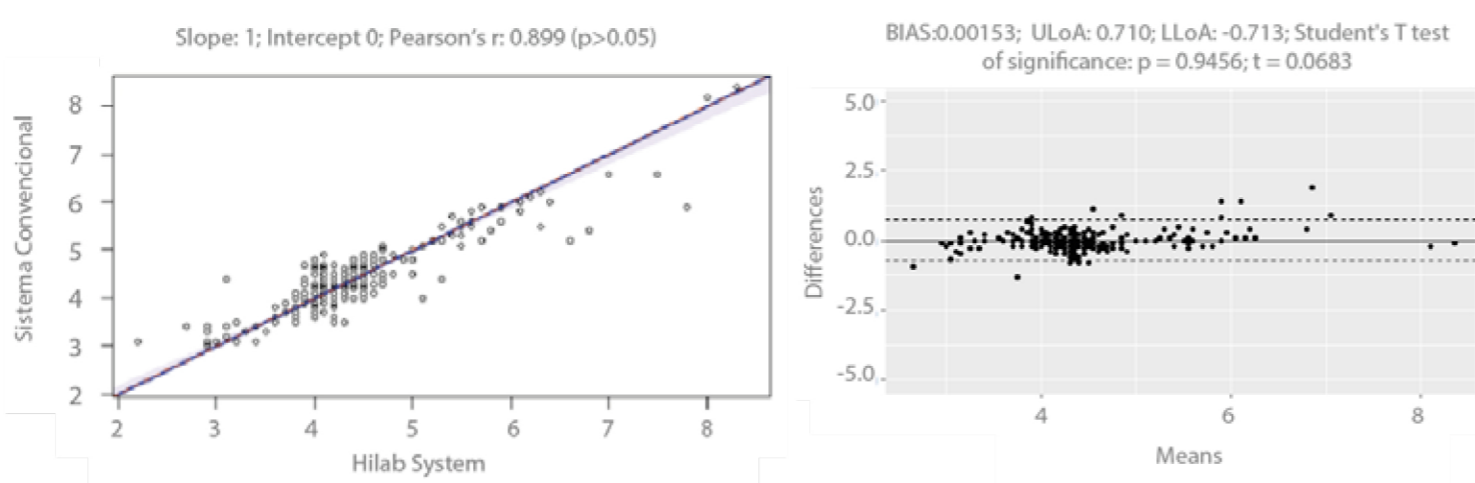
## Analytical Performance Study

	Accuracy (%)	Specificity (%)	Sensibility (%)
Potassium	100	100	100
Sodium	99.0	98.0	100
Ionized Calcium	99.8	99.6	100
AST	98.0	97.9	100
ALT	100	100	100
Glucose	98.2	100	99.2

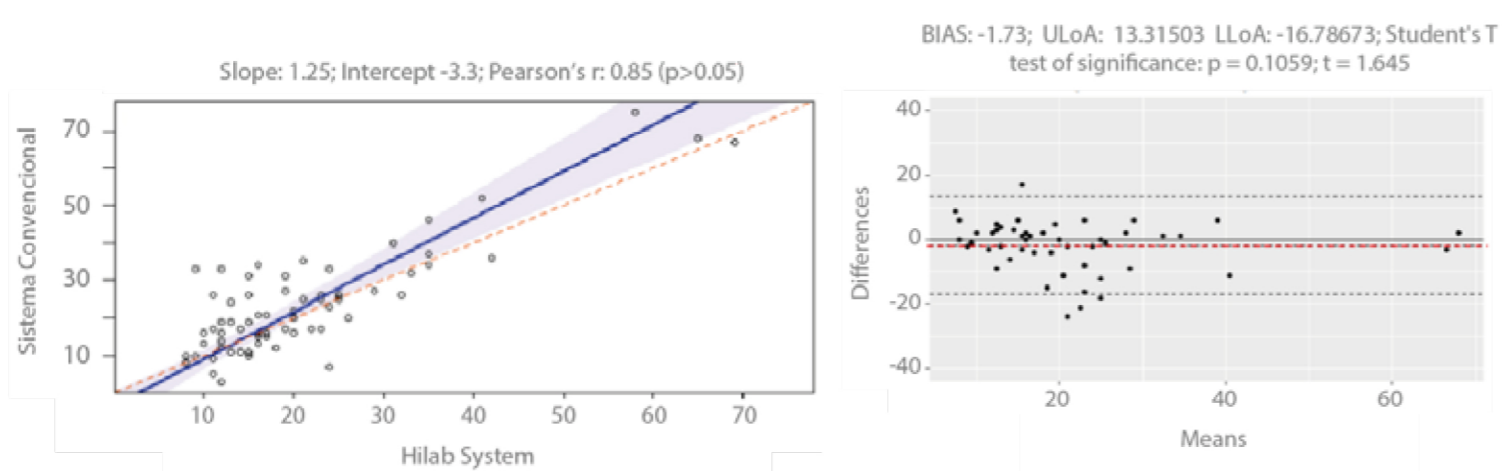
## GLUCOSE ANALYTICAL PERFORMANCE



## POTASSIUM ANALYTICAL PERFORMANCE



## ALT ANALYTICAL PERFORMANCE



**hilab**volt

- ANVISA 80583710019
- Urgency and emergency tests
- Online automatic based calibration
- Remote external and internal quality controls
- Second opinion: our artificial intelligence with the support of specialists in hematology
- Comparable to Gold Standard Diagnosis
- Sample type: whole blood/serum
- Finger prick or venous collection: 30 µL
- 100% remote analysis
- Dimensions: 130 x 88 x 43 mm (L x W x H)
- Weight: 100g

# TEST MENU



## hilab flow

Imunocromatografia,  
FLuorescência  
e Colorimetria

ANVISA: 80583710007

Dimensões cm (AxLxC):  
12,7 x 12,4 x 12,4 cm

Peso: 450g

Quantitative tests	Analyte	Minimum Detection limit	Maximum Detection limit	ANVISA
b-HCG	b-HCG	10 mUI/mL	1500 mUI/mL	80583710049
C-reactive protein	CRP	5 mg/L	200 mg/L	80583710045
Ferritin	Ferritin	10 ng/mL	350 ng/mL	80583710029
Free T4 (FIA)	Free T4 (FIA)	0,3 ng/dL	4,0 ng/dL	80583710040
Glycated hemoglobin (FIA)	HbA1c	4,00%	14,50%	80583710044
Kidney function	Creatinine	0,6 mg/dL	4 mg/dL	80583710024
	Urea	10 mg/dL	100 mg/dL	
Lipid profile	Cholesterol	100 mg/dL	400 mg/dL	80583710051
	HDL	20 mg/dL	100 mg/dL	
	Triglycerides	100 mg/dL	400 mg/dL	
TSH	TSH	4,5 µUI/mL	10 µUI/mL	80583710014
25 (OH) D	25 (OH) D	10 ng/mL	70 ng/mL	80583710050



## hilab lens

Microscopia Digital

ANVISA: 80583710047

Dimensões cm (AxLxC):  
19,7 x 9,9 x 15,3 cm

Peso : 500g

Quantitative tests	Analyte	Minimum Detection limit	Maximum Detection limit	ANVISA
Complete Blood Count	Total Red Blood Cells	0 mm <sup>3</sup>	9,0x10 <sup>6</sup> mm <sup>3</sup>	80583710046
	Hemoglobin	0 g/dL	25 g/dL	
	Hematocrit	0,00%	75,00%	
	MCV	0 fL	140,0 fL	
	MCH	0 pg	35,0 pg	
	Total White Blood Cells	0/mm <sup>3</sup>	200.000/mm <sup>3</sup>	
	Neutrophil Count	0/mm <sup>3</sup>	200.000/mm <sup>3</sup>	
	Lymphocyte Count	0/mm <sup>3</sup>	200.000/mm <sup>3</sup>	
	Monocyte Count	0/mm <sup>3</sup>	200.000/mm <sup>3</sup>	
	Eosinophils and Basophils	0/mm <sup>3</sup>	200.000/mm <sup>3</sup>	
Total Platelets	0/mm <sup>3</sup>	1.500.000/mm <sup>3</sup>		

\*The analytes present absolute and relative values.



## hilab volt

Eletroquímica

ANVISA: 80583710019

Dimensões cm (AxLxC):  
4,3 x 8,8 x 13,0 cm

Peso: 100g

Quantitative tests	Analyte	Minimum Detection limit	Maximum Detection limit	ANVISA
ALT	ALT	10,0 µ/L	210,0 µ/L	80583710043
AST	AST	10,0 µ/L	210,0 µ/L	80583710042
Blood Glucose	Blood Glucose	20 mg/dL	620 mg/dL	80583710048
Ionic Calcium	Ionic Calcium	0,74 mM	1,70 mM	80583710036
Potassium	Potassium	1,0 mM	10,0 mM	80583710030
Sodium	Sodium	60,0 mM	300 mM	80583710032

# TEST MENU



**hilabflow**

Imunocromatografia,  
FLuorescência  
e Colorimetria

ANVISA: 80583710007

Dimensões cm (AxLxC):  
12,7 x 12,4 x 12,4 cm

Peso: 450g

Qualitative tests	Analyte	Cut-off (reactive/non-reactive)	ANVISA
Cardiac markers	CK-MB	5 ng/mL	80583710028
	Myoglobin	50 ng/mL	
	Troponin I	0,5 ng/mL	
Dengue NS1	Dengue NS1	-	80583710039
Influenza A and B	Influenza A and B	-	80583710027
Procalcitonin	Procalcitonin	1 ng/mL	80583710034
PSA	PSA	4,0 ng/mL	80583710025
Zika IgG and IgM	Zika IgG and IgM	-	80583710031

## Application Scenarios



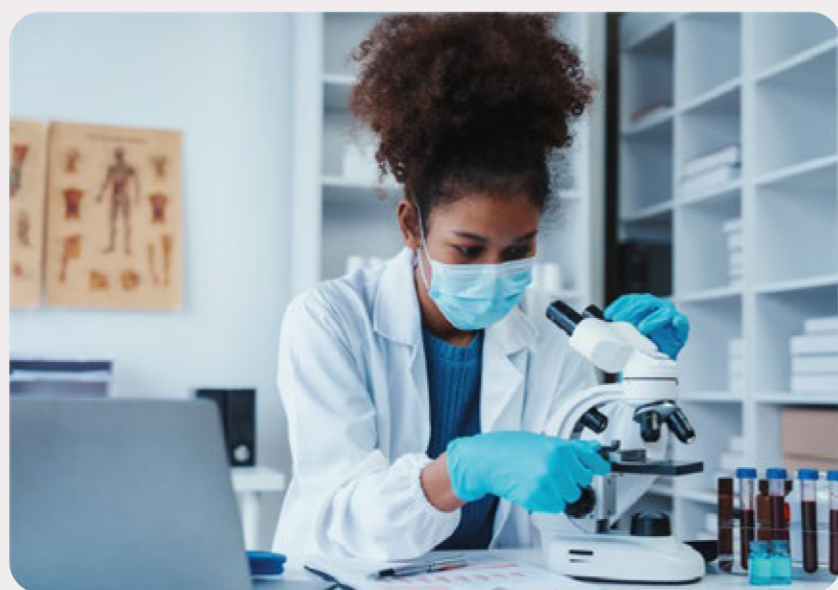
Hospitals



Clinics and medical offices



Urgency and emergency



Laboratories



Remote Regions



Oncology Clinics



# Coming soon

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**hilab**lens

- Erythrocyte Sedimentation Rate
- Ova and parasite (O&P) test
- Pap test
- Malaria - Microscopic detection
- Urinalysis
- Reticulocytes count



**hilab**flow

- Total Bilirubin
- FOB test
- Total and Free PSA
- Estradiol
- hs-CRP
- Total Testosterone
- High-sensitivity Troponin hs-cTnl
- Free T4



**hilab**volt

- Chloride (Cl-)
- PT and aPTT
- Influenza A/B
- $\beta$ -hCG
- High-sensitivity troponin
- Covid-19

