Linkor *Signature*
Multifunction Analyzer
by **immunEC**

The Linkor Signature is an all-in-one blood test analyzer, designed for more convenient and cost-effective screening. These tests are used to support surgeons' decision making.

Single-use reagents come in 3 boxes.

Linkor *Signature* immunEC x 20 sample kits	immunEC	immunEC
Kit for Sample Processing for Hematology Analysis	25-OH-VD Rapid Quantitative Test x 20 test kits	GLU/HDL-C /TC/TG Combo test kit x 20 test kits
1. CBC	2. Vitamin D	3. Glucose/Lipids

FULLY AUTOMATED WORKFLOW

STEP 1 :
Collect sample

≈ 3 drops of capillary blood (160μL)

STEP 2 :
Put into the Linkor

4 technologies used :
- Morphological Analysis of Cells (CMA)
- Fluorescence Immunoassay (FIA)
- Biochemistry
- Inflammatory index calculations

STEP 3 :
View results, displayed in 15 min. :

- CBC
- Vitamin D
- Glucose & Lipids
- Inflammatory Indexes

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1. KEY BENEFITS

✔ **Rapid in house testing** : Results are displayed in 15 minutes allowing efficient patient health screening before surgery without outsourcing exams.

✔ **Advanced AI algorithm** : The computer vision and AI recognition software is trained on more than 40 million samples and compared to manual reference, ensuring more accurate classification, identification, and counting of blood cells.

✔ **Contamination prevention** : Uses individually packaged, single-use test kits.

✔ **High Precision** : Equipped with SwissOptic® custom lenses and multispectral imaging.

✔ **Easy Export** : Printing (internal/external), USB key or access through IP address (PC & Mobile)

✔ **Maintenance-free design** : Features a dry-type system without a fluidic pipeline, eliminating the need for cleaning solutions and significantly reducing maintenance workload and costs.

TEST REPORT TEMPLATE

Parameters	Results	Units	Reference range
INFLAMMATION / OXIDATION			
Vitamin D	43.95	ng/mL	30 ~ 100
LDL Cholesterol	1,96	g/L	<1,60
	5,07	mmol/L	<4,14
Glucose	0,77	g/L	0,70 ~ 1,10
	4,27	mmol/L	3,89 ~ 6,11
Platelets	247.38	10^9/L	100 ~ 350
SII index	400.38	/	< 520
SIRI index	1.02	/	< 1.10
LIPIDS			
Cholesterol Total	2.80	g/L	< 2.00
	5,07	mmol/L	0 ~ 5.20
HDL Cholesterol	0.60	g/L	0,40 ~ 0,80
	1,25	mmol/L	1.16 ~ 1.42
Triglycerides	0,96	g/L	<1,50 ~ 1,70
	1,07	mmol/L	<1.69
RED BLOOD CELLS R.B.C			
Red blood cells	4.80	10^12/L	4.30 ~ 5.80
Hematocrit	40.5%	/	40.0 ~ 50.0%
Mean corpuscular volume	85.87	fL	82.00 ~ 100.00
Hemoglobin	13	g/dL	12 ~ 16
WHITE CELLS W.B.C			
White blood cells	6.75	10^9/L	3.50 ~ 9.50
Neutrophils	6.75	10^9/L	1.80 ~ 6.30
Neutrophils immatures + ratio %	0.16 0.22%	10^9/L	0.04 ~ 0.50 <5%
Lymphocytes + ratio %	1.90 28.2%	10^9/L	1.10 ~ 3.20 20 ~ 50%
Lymphocytes Atypical	0.10	10^9/L	0.00 ~ 0.20
Monocytes + ratio %	0.32 4.5%	10^9/L	0.10 ~ 0.60 3 ~ 10%
Eosinophils + ratio %	0.35 5.18%	10^9/L	0.02 ~ 0.52 0.40 ~ 8%
Basophils + ratio %	0.03 0.44%	10^9/L	0.00 ~ 0.06 <1%
Reticulocytes + ratio %	40.7 0.86%	10^9/L	24.0 ~ 84.0 0.50 ~ 1.50%
OTHER RESULTS			
Platelet Distribution Width	9.56	fL	6 ~ 14
Platelet Large Cell Concentration + ratio %	42.16 17%	10^9/L	13 ~ 130 12 ~ 45%
Platelets Aggregation	0.00	10^9/L	0.00 ~ 0.00
Variation of RBC distribution Width + STD deviation	13.15% 45	/ fL	12 .00 ~ 14.30 37.00 ~ 50.00
Mean Corpuscular Hemoglobin	28.2	pg	27 ~ 34
Neutrophilic Segmented Granulocyte + ratio	4.16 62%	10^9/L	2 ~ 7 50~ 70%
Neutrophilic Hypersegmented Granulocyte	0.10	10^9/L	0.00 ~ 0.30
NLR index	2.19	/	< 3.50

RBC

WBC

PLT

NST
Std img   0.05*10^9/L

NSG
Std img   2.51*10^9/L

LYM
Std img   2.03*10^9/L

MON
Std img   0.34*10^9/L

EOS
Std img   0.19*10^9/L

RET
Std img   16.78*10^9/L

BAS
Std img   0.01*10^9/L

ALY
Std img   0.0*10^9/L

PAg
Std img   0.0*10^9/L

NSH
Std img   0.01*10^9/L

méde

Courbe érythrocytaire

Courbe leucocytaire

Courbe plaquettaire

2. TECHNICAL SPECIFICATIONS

Specifications	Details
Connectivity	LIS, LAN, USB, Type-C, SIM
Calibration	Automatic calibration
QC Test	Reusable Dry Type QC Board, after every 200 tests. A reminder that QC Test is required will appears on screen when needed.
Size	400 × 350 × 450 mm, with 10.1-inch full-color touchscreen
Weight	15 kg
Power	AC 100–240V, 50/60Hz
Noise level	≤65 dBA

3. VARIABILITY OF PARAMETERS TESTED

CBC Hematology Analysis				
Type of test	Precision	Accuracy	Linearity	Counting criteria
WBC	CV ≤ 6%	± 15.0 %	R ≥ 0,990	≤ 0.5×10^9/L
RBC	CV ≤ 3%	± 6.0 %	R ≥ 0,990	≤ 0.05×10^{12}/L
PLT	CV ≤ 10%	± 20.0 %	R ≥ 0,990	≤ 10×10^9/L
HGB	CV ≤ 2.5%	± 6.0 %	R ≥ 0,990	≤ 2g/L

25-OH Vitamin D				
Type of test	Precision	Accuracy	Linearity	Limit of detection
Repeatability (intra-dosing CV)	CV ≤ 10%	±15%	R ≥ 0.990 for the concentration range of 5.0 to 120 ng/mL	≤ 5.0 ng/mL.
Intermediate accuracy (CV between tests)	CV ≤ 15%			
Crochet Effect : A sample of 25-OH-Vit D with a concentration < 1000 ng/mL did not have a Hook effect.				

Test combo Glu/HDL/TC/TG					
Type of test	Precision		Accuracy	Linearity	Sensitivity
	Repeatability (intra-assay CV)	Intermediate accuracy (CV between tests)			
Glucose	CV ≤12%	CV ≤ 8%	± 15.0 %	R ≥ 0,9750	1 mmol
HDL - Chol.	CV ≤ 8%	CV ≤ 15%			0,13 mmol
LDL - Chol.	CV ≤ 10%	CV ≤ 15%			0,20 mmol
Total Chol.	CV ≤ 12%	CV ≤ 15%			1.3 mmol
Triglycerides	CV ≤ 8%	CV ≤ 15%			0.25 mmol