



SMARTTESTER

rapid test reader



Test results
within minutes

- / PORTABLE
- / UP TO 10 HOURS OPERATION WITH BATTERIES
- / POCT COMMUNICATION STANDARDS

FEATURES

SmartTester rapid test reader is a point-of-care instrument for in vitro diagnostic use, designed for the quick and quantitative evaluation of the related lateral flow tests. The operator gets test result within minutes, from just a few drops of sample.

A quick decision can then be made on the necessity to examine the patient any further.

TECHNICAL FEATURES

- / Quantitative rapid tests
- / Image processing-based measurement technology
- / Ergonomic design

APPLICATIONS

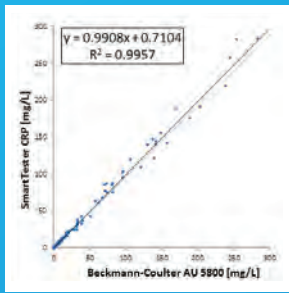
- / POCT environment
- / Emergency departments
- / Ambulance
- / General practice
- / Invasive cardiology
- / Smaller laboratories



TECHNICAL SPECIFICATIONS

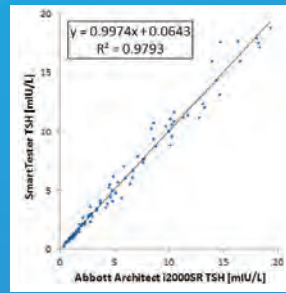
Technology:	Reflectance photometry
Throughput:	Up to 60 assays per hour
Memory capacity:	3000 test results, 1000 QC results Internal memory
Display:	4.3" LCD touchscreen
Printer:	Internal thermal printer
Interfaces:	Ethernet, RS232, USB A/B, PS2, external Wi-Fi USB adapter (optional)
Communication protocols:	LIS2-A2, HL7, POCT1-A2
Electrical rating:	100-240 VAC 50/60 Hz or 6 pcs alkaline or rechargeable AA batteries
Operating conditions:	15-32°C, 30-80% R

CRP



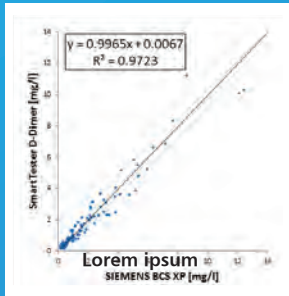
C-reactive protein (CRP) is virtually absent from the blood of healthy persons but increases dramatically in response to infection or inflammation. The measurement of CRP in the blood is valuable in detecting inflammation due to acute conditions, or in monitoring disease activity in chronic conditions.

TSH



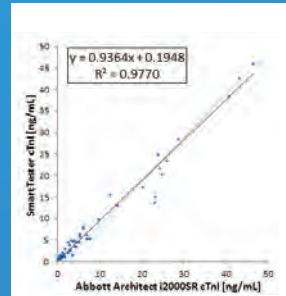
TSH is a hormone produced in the pituitary gland, which stimulates the production of T4 and T3 thyroid hormones that regulate many metabolic processes in the body. Precise determination of TSH concentration allows the detection of aberrations of thyroid function.

D-Dimer



D-Dimer is a fibrin degradation product present in the bloodstream after a blood clot is degraded by fibrinolysis. D-Dimer levels are typically elevated in patients with acute thrombotic disease (e.g. deep venous thrombosis, pulmonary embolism).

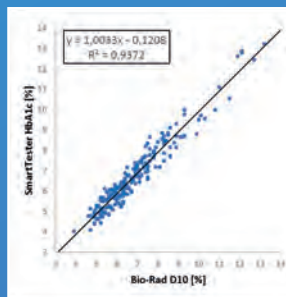
cTnI



Cardiac troponin I (cTnI) is released into the blood stream within hours following acute myocardial infarctions (AMI) or ischemic damage. Elevated levels of cTnI are detectable in blood within 4 to 6 hours after the onset of chest pain.

D-Dimer and CRP valuable indicators of COVID-19 implications

HbA1c



HbA1c is the glycated form of hemoglobin, and its amount is proportional to the average blood glucose concentration over the previous 90 – 120 days. The measurement of HbA1c is primarily used for glycemic control in diabetics and for the diagnosis of diabetes mellitus.

mALB		Reference clinical chemistry analyzer		
		<30 mg/L	30-100 mg/L	>100 mg/L
Smart Tester	<30 mg/L	90	0	0
	30-100 mg/L	4	36	0
	>100 mg/L	0	2	68

Microalbuminuria is the sustained increase in albumin concentration in the urine, which is an early sign of kidney damage. Under normal conditions albumin is retained by the glomerular filtration barrier. Due to kidney damage the permeability changes and albumin appears in the urine.

hCG		Reference hCG analyzer		
		Negative	Borderline	Positive
Smart Tester	Negative	50	0	0
	Borderline	4	0	0
	Positive	0	5	44

Human chorionic gonadotropin (hCG) is a glycoprotein hormone secreted by the syncytiotrophoblast cells of the placenta. It controls uterine growth so that it is in-line with the growth of the fetus. HCG is detectable in maternal circulation and urine already 8-10 days after fertilization.

PARAMETERS	CRP	D-Dimer	TSH	cTnI	mALB	hCG	HbA1c
SAMPLE	serum, plasma, whole blood, fingertip blood	plasma, whole blood	serum, plasma	serum, plasma, whole blood	urine	urine	whole blood, fingertip blood
ANTICOAGULANT	heparin, sodium-citrate, EDTA	sodium-citrate	heparin, sodium-citrate, EDTA	heparin, sodium-citrate	-	-	heparin, sodium-citrate, EDTA
SAMPLE VOLUME	10 µL	120 µL	100 µL	120 µL	120 µL	100 µL	10 µL
INCUBATION TIME	1.5 minutes	7 minutes	15 minutes	15 minutes	3 minutes	5 minutes	3 minutes
RANGE	0.5 - 200 mg/L	0.2 - 10 mg/L	0.2 - 20 mIU/L	0.5 - 10 ng/mL	<30 mg/L, 30-100 mg/L, >100 mg/L	Negative, Borderline, Positive	3% - 14% (9-130 mmol/mol)
STORAGE TEMPERATURE	4-30°C					1-30°C	4-30°C