Bioevopeak

POCT TESTING

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POCT Fully Immunofluorescence Quantitative Analyzer

IFA-Q-1000

POCT Fully Quantitative Immunofluorescence Analyzer
Most Stable Rare Earth Material Time-Resolved
Immunofluorescence Methodology
Top Quality POCT Immunofluorescence Platform

Platform Features

◆ Sample Types: Serum,Whole Blood,Plasma,Fingertip Blood,Urine...
◆ Parameters: Diabetes,Kidney Function,Infection,Cardiac Function,Gastric Function...
◆ Comprehensive
◆ Various assays
◆ Comprehensive sample types

Simple and Convenient

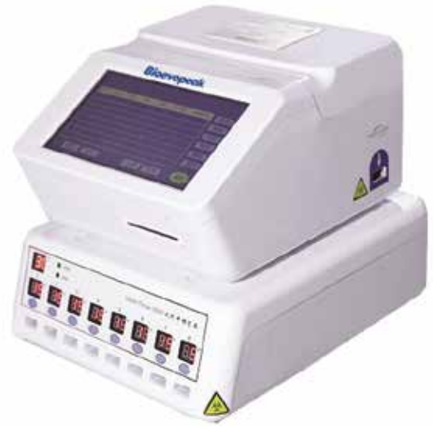
◆ Small size, space -saved, stacked incubators
◆ Convenient operation, no requirement for professional skills

Accuracy

◆ Constant incubation, corruption prevention,
◆ low coefficient variance Precise quality control, accurate results

Rapidity

◆ Point of care testing
◆ Instant results analysis in 10 seconds



Specifications

Subject	Performance parameter
Detection speed	10 sec/test
Time of first result	5-15min
Sample position	8 channel (stackable)
LIS system	Support ASTM and HL7
Size(mm)	214mm×260mm×143mm
Net/Gross Weight	8.5/9kg
Control	Embedded integrated machine
Interface	Graphical operation interface
Status monitor	Real-time intelligent monitoring
Repeatability	CV≤15%

Fluorescence

◆ Rare Earth Fluorescence life-span is longer than Quantum
◆ Fluorescence with no disruption and high accuracy

Fluorescent materials	Life-span
Fluorescent rare earth	714000 ns
Quantum	20-50 ns
Nonspecific fluorescent particle	1-10 ns

◆ Rare earth fluorescence has larger stokes shift, higher signal-to noise ratio (SNR) and higher sensitivity compared to other markers
◆ Rare earth fluorescence has high quantum yield, high fluorescent efficiency, and wide linear range

Menu of assays

Biomarkers		Abbr.	Specimen	Instruction for Use	Instruction for Use	Measuring range
Inflammation	Procalcitonin	PCT	Serum/Whole Blood	·Indicate sepsis and bacterial infection	<0.05 ng/mL	0.05-100 ng/mL
	Full Range C-reactive Protein	CRP	Plasma/Whole Blood	·Low risk of cardiovascular disease ·Medium risk of cardiovascular disease ·High risk of cardiovascular disease ·Detecting conventional inflammation	hs-CRP:<1.0mg/L hs-CRP:1.0-3.0mg/L hs-CRP:>3.0mg/L CRP:≤10 mg/L	0.5-200 mg/L
	C-reactive Protein/ Amyloid proteinase A 2-in-1	CRP/SAA	Plasma/Whole Blood	·Low risk of cardiovascular disease ·Medium risk of cardiovascular disease ·High risk of cardiovascular disease ·Detecting conventional inflammation	hs-CRP: <10mg/L hs-CRP:1.0-3.0mg/L hs-CRP: >3.0mg/L CRP:≤10 mg/L	0.5-200 mg/L
Immune	Rheumatism 3-in-1	ASO/RF/CRP	Serum/Plasma/Whole Blood	·Indicators of systemic inflammation ·To assist in the diagnosis, classification and prognosis of rheumatoid arthritis	ASO:≤200 IU/mL RF:≤20IU/mL CRP:≤10 mg/L	ASO:50-500 IU/mL RF:10-200 IU/mL CRP:0.5-200 mg/L
	*Anti cyclic citrullinated peptide antibody	Anti-CCP	Serum/Plasma/Whole Blood	·Assistant diagnostic indexe of rheumatoid arthritis	≤25 U/mL	25-1000 U/mL
Cardiovascular	Cardiac Troponin I	cTnI	Serum/Plasma/Whole Blood	·Diagnose AMI, risk stratification and evaluate prognosis Value markers of non ST segment elevation MI	≤0.3 ng/mL	0.1-50 ng/mL
	Creatine Kinase-MB	CK-MB	Serum/Plasma/Whole Blood	·Negative exclusion of early AMI; Detection of recurrence and thrombolytic therapy	≤5 ng/mL	1-100 ng/mL
	Myoglobin	MYO	Serum/Plasma/Whole Blood	·Early diagnosis of AMI	≤70 ng/mL	5-500 ng/mL
	Myocardial Infarction(MI) 3-in-1	cTnI/MYO/CK-MB	Serum/Plasma/Whole Blood	·Same as above 3 markers	cTnI:≤03ng/mL MYO=70 ng/mL CK-MB:≤5ng/mL	cTnI:01-50 ng/mL MYO:5-500 ng/mL CK-MB:1-100 ng/mL
	D-Dimer(D-Dimer)	D-Dimer	Plasma/Whole Blood	·Exclusion and diagnosis of venous thromboembolism	≤0.5 mg/L	0.1-10 mg/L
	N-terminal B-type natriuretic peptide	NT-proBNP	Serum/Plasma/Whole Blood	·Diagnosis heart failure, risk stratification and prognostic evaluation	≤300 pg/mL	50-35000 pg/mL
	*Lipoprotein-Associated Phospholipase A2	Lp-PLA2	Serum/Plasma/Whole Blood	·Indicating the stability of atherosclerotic plaque ·Predicting the risk of coronary heart disease and stroke	≤200ng/mL	20-1000 ng/mL
	*cTnI/NT-proBNP/D-Dimer 3-in-1	cTnI/NT-proBNP/ D-Dimer	Plasma/Whole Blood	·Same as above 3 markers	ctnI:≤03ng/mL NT-proBNP:≤300 pg/mL D-Dimer:≤0.5 mg/L	cTnI:01-50 ng/mL NT-proBNP:100-20000 pg/mL D-Dimer:0.1-10 mg/L
Digestion	*Pepsinogen I/Pepsinogen II & 2-in-1	PGI/PGII	Serum/Plasma/Whole Blood	·Screening of high risk population of gastric cancer ·Indexes of various gastric functional diseases	PGI＜70 ng/mL and PGR (PGI/PGII ratio) ＜3.0	PGI: 5-300 ng/mL PGII: 2-70 ng/mL
	*Gastrin 17	G17	Serum/Plasma/Whole Blood	Reflecting both the structure and funtion of the stomach antrum.	1-7 pmol/L	1-50 pmol/L
Anaemia	Ferritin	FER	Serum/Plasma/Whole Blood	·One of the diagnostic indexes of invisible iron deficiency anemia and liver disease ·One of malignant tumor markers	Male(age 20-60):30-400 μg/L Female(age 17-60):13-150 μg/L	5-1000 μg/L

Menu of assays

Biomarkers		Abbr.	Specimen	Instruction for Use	Instruction for Use	Measuring range
Diabetes & Renal Injury	β_2-Microglobulin	β2-MG	Serum/Urine	Sensitive indicators of crypto acute and chronic kidney diseases	Urine：0.10-0.30mg/L Serum：1.011-2.97mg/L	0.1-20 mg/L
	Cystatin C	Cys-C	Serum	Detection indexes of early diabetic nephropathy and hypertensive nephropathy	0.57-1.01 mg/L	0.2-10 mg/L
	Neutrophil Gelatinase -Associated Lipocalin	NGAL	Urine	Early diagnosis of acute kidney injury (AKI)	＜131.7 ng/mL	5-1500 ng/mL
	Urine Microalbumin	mAlb	Urine	Reflect the situation of early nephropathy and renal injury	≦20 mg/L	5-300mg/mL
	C-Peptide	C-P	Serum	Classification of diabetes mellitus and judgment of islet function	1.1-4.4 ng/mL	0.1-40 ng/mL
	Glycosylated Hemoglobin	HbA1c	Whole Blood	One of the indexes for diagnosis and screening of diabetes mellitus Objective to investigate the long-term blood glucose control of diabetic patients	4.0%-6.0%	4.0%-14%
Bone Metabolism	25-Hydroxy-Vitamin D	25(OH)VD	Serum	Diagnosis and detection of rickets (children), osteomalacia,postmenopausal osteoporosis and nephropathy	≧30 ng/mL	4-60 ng/mL
Fertility	*Total β subunit human chorionic gonadotropin	β-HCG	Serum	·For the diagnosis of early pregnancy	Gestational / mIU/L Normal / ＜5 5-9W / 158-163563 10-15W / 12039-210612 16-18W / 8099-58176	5-30000 mIU/L
	*Progesterone	PROG	Serum	·Track ovulation and placenta function	Male:0.14-2.06 ng/mL Female Follicular Phase: 0.31-1.52 ng/mL Female Luteal Phase: 5.16-18.56 ng/mL Female Menopause: ＜0.78 ng/mL	0.30-40.00 ng/mL
	*Follicle-stimulating Hormone	FSH	Serum	The combined detection of follicle stimulating hormone (FSH) and LH is used for the examination of abnormal development of menstrual cycle, fertility and adolescence.	Male(mIU/ml): 1.27-19.26 female (mIU/ml): Follicular:3.85-8.78 Ovulatory:4.54-22.51 Luteal:1.79-5.12 Postmenopausal:16.74-113.59	0.30-40.00 ng/mL
	*Prolactin	PRL	Serum	·Used to diagnose anovulatory cycle, hyperprolactinic amenorrhea and galactorrhea, male breast overdevelopment and sperm deficiency	Male (ng/ml):2.64-13.13 female (ng/ml):2.74-26.72	1-170 ng/mL

Menu of assays

Biomarkers		Abbr.	Specimen	Instruction for Use	Instruction for Use	Measuring range
Fertility	*Luteinizing Hormone	LH	Serum	·Used for the examination of hypothalamus pituitary ovary dysfunction. Combined detection of luteinizing hormone (LH) and follicle stimulating hormone (FSH) can be used to detect the causes of polycystic ovary syndrome, Turner syndrome, primary hypogonadism, premature ovarian failure and amenorrhea. Elevated levels of luteinizing hormone (LH) and follicle stimulating hormone (FSH) and low concentrations of gonadal steroids in men indicate possible testicular failure or azoospermia.	Male(mIU/ml): 1.24-8.62 female (mIU/ml): Follicular:2.12-10.89 Ovulatory:19.18-103.03 Luteal:1.20-12.86 Postmenopausal: 10.87-58.64	1-150 mIU/mL
Thyroid Hormone	*Thyroid-stimulating hormone	TSH	Serum	·Evaluation of therapeutic effect and prognosis of thyroid diseases	0.51-6.27 mIU/L	0.1-100 mIU/L
	*Triiodothyronine/Thyroxine & 2-in-1	TT3/TT4	Serum	·Detection indexes of hyperthyroidism, hypothyroidism, thyroiditis and hypothalamic lesions	TT3: 0.92-2.79 nmol/L TT4: 58.10-140.60 nmol/L	TT3: 0.6-12.30 nmol/L TT4: 12.87-300 nmol/L
Tumour	*Total Prostate Specific Antigen	t-PSA	Serum	·Used for the diagnosis, curative effect judgment and prognosis prediction of prostate cancer.	≤4 ng/mL	2-100ng/mL
Immune	*Interleukin 6	IL-6	Serum	·Regulate the growth and differentiation of many kinds of cells, regulate immune response, acute phase response and hematopoietic function, and play an important role in the body's anti infection immune response.	Serum	1.5-5000pg/mL

Fluorometer

FLUOM-5B

◆ Fluorometer-binding quantitative kits use fluorescent dyes to selectively bind to specific target molecules.These fluorescent dyes emit fluorescent signals only when the target molecule is bound.Therefore, it is more accurate than the traditional UV absorption method (SP-MUV1000), because the UV absorption method is not selective and measures the absorption value of all substances at 260 - such as DNA, RNA, protein, degrade nucleic acids and free nucleotides or excess salt ions, etc.
◆ In addition, the UV spectrophotometer is not sensitive enough to accurately quantify DNA and RNA at low concentrations (below 2ng/μL), so a highly sensitive fluorometer becomes a better choice. Combined with the corresponding quantitative kit, the FLUOM-5B Fluorometer can quickly, sensitively and accurately determine the concentration of DNA.

Platform Features

◆ The FLUOM-5B benchtop fluorometer is easy to operate, combined with a highly sensitive quantitative analysis kit, to accurately quantify DNA, RNA and protein concentrations. And it is equipped with two channels and has the ability to quickly analyze two fluorescent signals of one sample, which is economical.
◆ The combination of the SP-MUV1000 Micro-Volume Spectrophotometer and the FLUOM-5B Fluorometer provides comprehensive, accurate, easy and fast quantification of biomolecules.

Fluorometers are especially suitable for:

◆ Your samples are rare and difficult to process
◆ Based on fluorescence detection technology, it is three orders of magnitude higher than traditional UV spectrophotometry.
◆ The sample will be used for expensive downstream experiments: qPCR, PCR cloning, transfection and next-generation sequencing and other precision assays
◆ Ultra-low concentration samples (10pg/μL dsDNA).

Product characteristics

◆ Simple and intuitive - 7.0 inch color touch screen.
◆ Fast detection - fast and accurate quantification of DNA, RNA and protein in 3 seconds.
◆ High sensitivity - the lowest detection limit can reach 0.5pg/μL double-stranded DNA.
◆ Configure two fluorescence channels: Measure two different fluorescence in one analysis.
◆ Five orders of magnitude response range.
◆ Open system, which can match common reagents on the market.
◆ More than 100,000 sample results can be stored, and can be exported through U disk.
◆ Micro adapter: 0.5ml quantitative PCR centrifuge tube adapter (standard configuration); 0.2ml quantitative PCR centrifuge tube adapter (optional).

Performance index

Subject	Performance parameter
light source	LED
Dynamic range	5 orders of magnitude
Repeatability	<1.5%
stability	<1.5%
Linearity	R2>0.995
Sensitivity	dsDNA:0.5ng/ml
Measuring speed	<3s(Master single test)

Standard configuration: channel

Channel	Excitation wavelength	Emission wavelength
Blue	470nm	525nm
RED	625nm	690nm

Optional channel

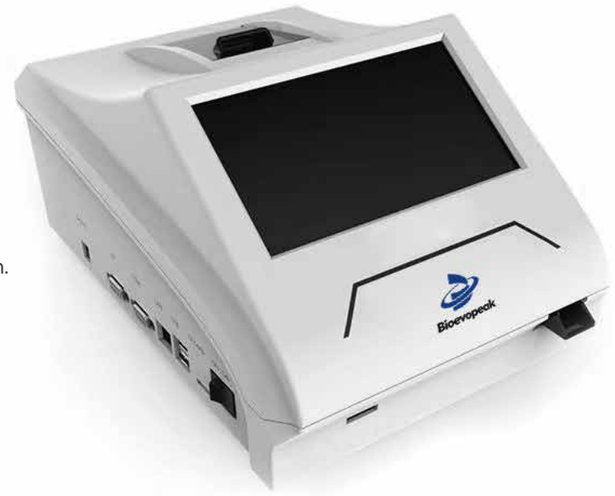
Channel	Excitation wavelength	Emission wavelength
UV	365nm	460nm
GREEN	525nm	620nm

Commonly used fluorescent reagents corresponding to different fluorescent channels and their applications

Excitation wavelength	Common fluorescent reagents	Application
365	Hoechst33258, 4-MU,EnZCheK Caspase	Plant GUS reporter gene assay, cell apoptosis assay
470	PicoGreen®, oligreen，RiboGreen®, GFP, Protein, Fluorescein, Quant-iT™	dsDNA, ssDNA quantification, green fluorescent protein GFP, fluorescein detection, protein quantification
525	Rhodamine, Cy3, RFP Vybrant Cytotoxicity	Rhodamine detection, Cy-3 fluorescent label detection, red fluorescent protein RFP gene detection, cell activity toxicity detection
625	Cy5, Quant-iT RNA	Cy-5 fluorescent labeling detection, RNA quantification

Dry Immunofluorescence Analyzer

IFA-J1000D



Features

- Single channel POCT detection platform.
- High sensitivity and stability, CV
- Easy operation, automatic discarding
- Easy to connect the hospital LIS and HIS system.
- ED,ICU,NICU,Outpatient service and Clinical Departments

Description

- Dry Immunofluorescence Analyzer is used for in vitro quantitative detection of various indicators in human serum, plasma, whole blood, and urine.It is mainly used to detect the contents of PCT, hs-cTnI, NT-proBNP, H-FABP, CK-MB, MYO, D-Dimer, NGAL, etc., and the results are used for clinical auxiliary diagnosis.

Specification

Model	IFA-J1000D
Detection Time	13~18min
Quality Control	Lyophilized controls with high, medium and low concentration levels
Display	7-inch LCD touch screen
Speed	180 Test/h (take PCT as an example)
Quality Control	Internal quality control calibration
Storage	More than 30,000
Printing	Built-in thermal printer, can be connected to an external printer
Data Transmission	USB, RS232, LIS
Electricity	AC 220V 50/60Hz
External Dimension	291*220*162mm
N.W./G.W.	3.44/4.04kg
Shipping Dimension	295*240*390mm

Measurement items

Biomarkers	Measurable Range	Sample Volume	Clinical Use
Peripheral PCT	0.01~100ng/mL	Peripheral blood 20ul	Diagnosis of infectious diseases and sepsis
PCT	0.01~100ng/mL	Serum / plasma 100μL Whole blood 120μL	Diagnosis of infectious diseases and sepsis
IL-6	2pg~4000pg/mL		Early markers of acute inflammation
CRP	0.1~200mg/L		Auxiliary diagnosis of inflammation
PCT/IL-6	0.01~100ng/mL 2pg~4000pg/mL		Diagnosis of infectious diseases and sepsis
hs-cTnI	0.005~50ng/mL	Serum/plasma 100μL Whole blood 120μL	Gold standard for ACS and AMI diagnosis
NT-proBNP	5pg~35000pg/mL		Diagnosis of heart failure
CK-MB/hs-cTnI/MYO	0.1~100ng/mL 0.005~50ng/mL 1~500ng/mL		Comprehensive solution to myocardial injury
H-FABP	1~200ng/mL		Early diagnosis of myocardial injury
D-Dimer	0.01~10mg/L	Plasma 100μL, Whole blood 120μL	Diagnosis of Deep Vein Thrombosis(DVT) and Pulmonary Embol(PE)
NGAL	1~5000ng/mL	Serum/ plasma 20μL Whole blood 30μL Urine 20μL	Diagnosis of Acute Kidney Injury (AKI) and acute renal failure (ARF)