SPECIFICATIONS

Measurement principle	Laser scatter + Fluorescence Staining + Flow cytometry
Operation	10.4 inch Touch Screen
Printer	External printer
Parameters for Blood	29 parameters: Leukocyte: WBC, NEUT(#,%), LYMPH(#,%), MONO(#,%), EO(#,%), BASO(#,%), IG(#,%), GRAN(#,%) Erythrocyte: RBC, HGB, HCT, MCV, MCH, MCHC, RDW-SD, RDW-CV Platelets: PLT, PDW, MPV, P-LCR, P-LCC, PCT
Blood Graph	Three blood histograms (PLT,RBC,WBC) Five two-dimensional scatter graph one three-dimensional scatter graph
Research Parameters for Blood	28 research parameters: MacroR%, MicroR%, MacroR#, MicroR#, NRBC#, NRBC%, InR#, InR‰, MAF TNC-D, WBC-D, WBC-C, HFLC#, HFLC%, LYMPH#&, LYMPH%&, NEUT#&, NEUT%&, NLR, RE-LYMPH#, RE-LYMPH%, AS-LYMP#, AS-LYMP%, NEUT-GI, NEUT-RI, IME#, IME%, PLR
Body fluid testing parameters	7 Reportable parameters (body fluid): WBC-BF, TC-BF#, MN#, MN%, PMN#, PMN%, RBC-BF 11 Research parameters (body fluid): HF-BF#, HF-BF%, NE-BF#, NE-BF%, LY-BF#, LY-BF%, MO-BF#, MO-BF%, EO-BF#, EO-BF%, RBC-BF2
BF Graph	Two blood histograms (RBC, WBC) Three two-dimensional scatter graph
Sample volume	Whole blood sample: 20ul Predilution Sample: 20ul Body Fluids sample: 70ul
Test mode	CBC, CBC+DIFF, DIFF(4), CD(LW), BF
Throughput	CBC: 70 Samples/hour CBC+DIFF: 70 Samples/hour DIFF(4): 70 Samples/hour CD(LW): 45 Samples/hour BF: 30 Samples/hour
Dimensions	550D x 360W x 605H mm, 36Kg
Power input	Voltage: 220V~ Frequency: 50Hz Power input: 300VA
Operating Environment	Ambient temperature: 15°C ~ 30°C Relative humidity: 30% ~ 85% Atmospheric pressure: 70.0kPa ~ 106.0kPa^ Altitude: 3000m
Tube type	Supported tube sizes: Diameter 11mm-15mm (without cap) x Length 60mm-83mm (with cap).
External output	LAN x 2 , USB x 4 , RS232 x 2 Supports connection with LIS systems, computers, mouse, keyboards, barcode reader, and USB storage devices

LINEARITY RANGE

Parameter	Linear Measurement Range	Linear Tolerance	r
WBC	$0 \sim 10.00 \times 10^9/L$ $10.01 \times 10^9/L \sim 100.00 \times 10^9/L$ $100.01 \times 10^9/L \sim 310.00 \times 10^9/L$ $310.01 \times 10^9/L \sim 500.00 \times 10^9/L$	with-in $\pm 0.25 \times 10^9/L$ with-in ±2.5% with-in ±6% with-in ±11%	⩾ 0.990
RBC	$0 \sim 1.50 \times 10^{12}/L$ $1.51 \times 10^{12}/L \sim 8.60 \times 10^{12}/L$	with-in $\pm 0.03 \times 10^{12}/L$ with-in ±2.0%	⩾ 0.990
HGB	0~100g/L 101g/L~260g/L	with-in ±2g/L with-in ±2.0%	⩾ 0.990
PLT	$0 \sim 200 \times 10^9/L$ $201 \times 10^9/L \sim 1000 \times 10^9/L$ $1001 \times 10^9/L \sim 5000 \times 10^9/L$	with-in $\pm 10 \times 10^9/L$ with-in ±5.0% with-in ±6.0%	⩾ 0.990

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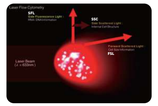
AUTOMATIC HEMATOLOGY ANALYZER

F 600

Core Technology of F600

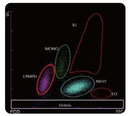


F600 utilises the same core technology as high-end haematology analysers. Combine 3rd Generation technology with low cytometry, A single-cell stream quickly passes through a channel in the middle, and every passing cell is detected by three beams of light from three directions to get size, granularity and nucleic acid information

FSC (Forward Scattered Light) mainly reflects the size of the cells,
SSC (Side Scattered Light) mainly reflects size and number of particle in cells
SFL (Side Fluorescence Light) mainly reflects the concentration of nucleic acid

Excellent performance

High sensitive to abnormal cells



Atypical lymphocyte and immature granular cell have strong nucleic acid fluorescent signal, after fluorescent staining, they are easier to be detected

Help to distinguish abnormal myeloid and gonorrhea cells

A true 6-part differential count (IG):
• Immature granulocytes (IG) with every differential analysis aids in the early prediction of infection and inflammation.
• No additional reagents required.

Benefits of F600 6-DIFF Analyser

1) Assessment is not solely based on cell size

Unlike 3-DIFF and some 5-DIFF analysers, fluorescent flow cytometry measures not only the cell size, but also the intracellular information and nucleic acid content. This produces a highly accurate differential count even as the cell size changes during normal storage.

2) Identification of immature cells

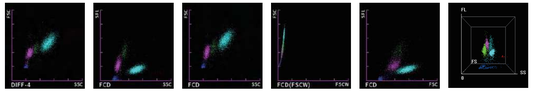
As immature cells have a higher nucleic acid content, with fluorescent flow cytometry, this has made the generation of six - part possible, the IG count possible. The precision of an automated IG count increases laboratory efficiency by reducing manual counts.

3) Superior flagging system for abnormal cells

The F600 are more sensitive to abnormal cells, provides more detailed and specific flagging including DIFF alarms, count alarms, morphological alarm, indicating red blood cell agglutination, platelet aggregation, primitive cells and abnormal lymphocytes.

Powerful Functions

a WHOLE CUBE



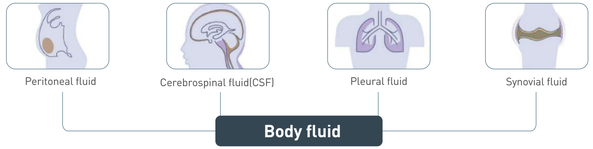
- With the newly designed opticals and reagent systems, the WHOLE Cube technology can help doctors to better differentiate the clusters of cells (6 parts, including Immature Granulocyte and Total Granulocyte), which is the key to revealing more abnormal cells.

b Low White Blood Cell Testing

- Special Low WBC counting mode, providing reliable results that aid in chemotherapy monitoring,etc.

c Body Fluids Testing

- F600 analyzer also has body fluid test function without requiring dedicated reagent. The various types of body fluids include Peritoneal fluid, Pleural fluid, Cerebrospinal fluid(CSF) and Synovial fluid



d MALAB Software

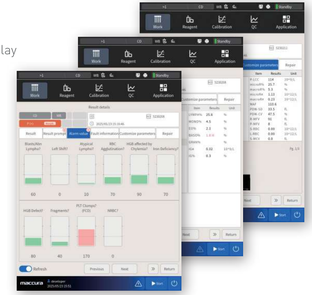
- MALAB is a data management system of F600 for professional data analysis.
- The MALAB software optimizes functions to simplify your workflow for data analysis including improving data management, re-validation for normal samples;
  it also provides more intuitive interface for you to review and validate pathological samples, QC records and 3D scatter graph, etc..

e Easy to use

- Multi-coloured 10.4 inch touch screen display embedded with intuitive graphical user interface.

f Flexibility

- Only 20μL of sample volume needed
- Support CBC, CBC+DIFF, DIFF, CD(LW), BF

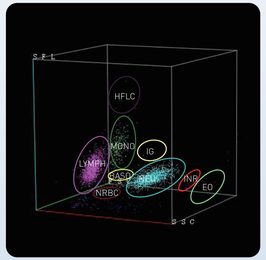


g Improved workflow

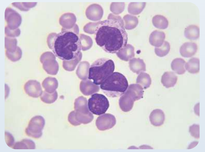
- Up to 70 samples per hour for blood testing
- Up to 30 Samples/hour per hour for BF testing
- Better TAT with one of the highest throughput compact 6-Part analysers in the market.

h Malaria Screening

- The F600 analyzer features "Infected RBC?" and "InR*(#,‰)" parameters, quantifying Plasmodium-infected erythrocytes (absolute count and percentage). Post-infection, InR-region data points rise proportionally to parasite load, enabling real-time parasitemia monitoring.

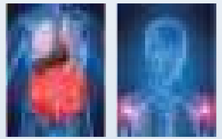


i Oncology Screening



- The presence of nucleated erythrocytes (NRBC), immature granulocytes (IG) in peripheral blood constitutes critical diagnostic indicators for hematopoietic malignancies, including leukemias, lymphoma, and other hematological malignancies.

j Infection Evaluation

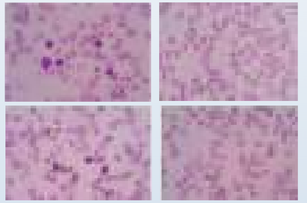


- Additional diagnostic indicators of inflammation, including WBC, DIFF, PLR, NLP, etc.

  PLR: Indicative of inflammation-related states, can be used to assess cardiovascular disease and assist in the diagnosis of tumors.

NLR: Used to assess infection, more sensitive to bacterial infection, etc., used to assess the severity of infection, prognosis.

k Anemia Evaluation



- The integration of traditional anemia indices (MCV, HGB, RDW) with novel parameters (Micro R, MacroR, MAF) improves the differential diagnosis of anemia subtypes, including iron deficiency anemia (IDA) and beta-thalassemia.