sysmex

XE-2100™
Automated Hematology System

Fast, Accurate, Dependable

Advanced Technology Solutions to Meet your Lab's Needs

Even with these challenges, the need for hematology testing has remained steady or continued to grow. Laboratories require hematology analyzers that improve productivity and efficiency while providing enhanced clinical information. Designed to be scalable, reliable and efficient, the Sysmex XE-2100™ offers medium to high volume labs an automated hematology system that can truly meet and exceed their expectations. The XE-2100 will streamline your workflow by providing rapid testing for up to 150 samples per hour.

Today's Laboratory Challenges

Laboratories have continued to face a number of challenges for several years. These include clinical, operational and financial issues.

Laboratory requirements include:

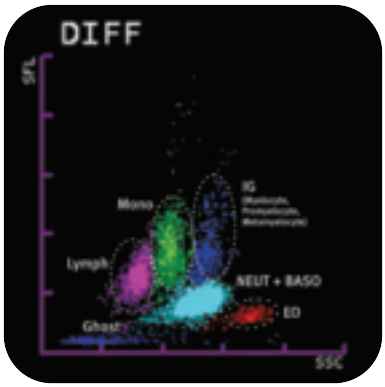
- Clinically relevant information
- High throughput
- Hands off automation
- High reliability
- Discrete testing options to minimize cost

The Sysmex XE-2100 Automated Hematology System utilizes the power of fluorescent flow cytometry and hydrodynamic focusing technologies. Using a unique, state-of-the-art, diode laser bench, Sysmex fluorescent flow cytometry provides the sensitivity needed for measuring and differentiating cell types in both whole blood and body fluid samples. Fluorescent technology and hydrodynamic focusing enable the XE-2100 to consistently classify normal WBC, RBC and PLT populations from abnormal populations, thereby decreasing the number of manual interventions.

Clinically Relevant Information

Immature Granulocyte Count

Unique to Sysmex, the XE-2100 offers a 6-part differential, which includes an **Immature Granulocyte Count** (IG%, #). The IG count provides reportable, quantitative results that includes metamyelocytes, myelocytes and promyelocytes.



Immature Granulocyte Count

The IG Count provides:

Improved accuracy and sensitivity:

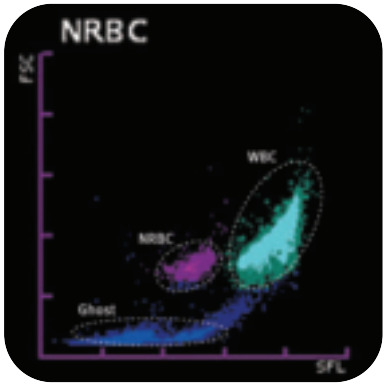
- Reduced false positive and false negative rates
- Result consistency by reducing tech-to-tech variation in reporting manual differentials

Improved workflow:

- Fewer manual differentials means faster turnaround time (TAT)

Labor Savings:

- Fewer manual slide reviews improves laboratory efficiency and supports higher laboratory output.



Fluorescent Nucleated Red Blood Cells

Fluorescent Nucleated Red Blood Cells

Enumeration of NRBCs is critical to providing an accurate WBC and differential in pathological samples. The XE-2100 fluorescent technology provides an NRBC in both % and # from a dedicated channel.

The NRBC measurement provides:

- Improved low-end sensitivity
- Rapid reporting to assist clinicians in patient diagnosis and treatment decisions
- Efficient automatic correction of WBC and Diff results
- Decreased false negative and false positive rates with advanced separation from WBCs and RBCs
- Available with every CBC or as a reflexive testing option

Standard Parameters:

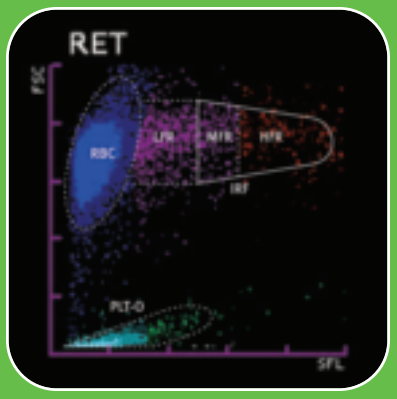
- NRBC – Fluorescent NRBC count with excellent sensitivity and specificity
- PLT-O – Fluorescent optical platelet count and traditional impedance PLT counting to improve accuracy at low and high PLT counting ranges
- Retic – Fluorescent reticulocyte count to reduce manual confirmation methods and their inherent errors

Optional Parameters:

- RET-He* – Reticulocyte Hemoglobin Content measures the incorporation of iron into the red cell to assist the physician in anemia evaluation and management (e.g., functional iron deficiency anemia)
- IPF* – Immature platelet fraction (measurement of reticulated platelets) to monitor thrombopoietic activity of the marrow
- HPC* – Quantitative hematopoietic progenitor cell count as a screen for the presence of hematopoietic progenitor cells in peripheral blood and cord blood samples

** Optional on the XE-2100*

Advanced Clinical Parameters



Fluorescent Reticulocyte Count

Fluorescent Reticulocyte Count

Known as the "Gold Standard" in reticulocyte testing, the fluorescent reticulocyte count is available on the XE-2100. Sysmex provides on-board retic testing in a dedicated channel, improving your efficiency in reporting reticulocytes 24 hours per day.

With the use of fluorescent technology, the retic channel provides:

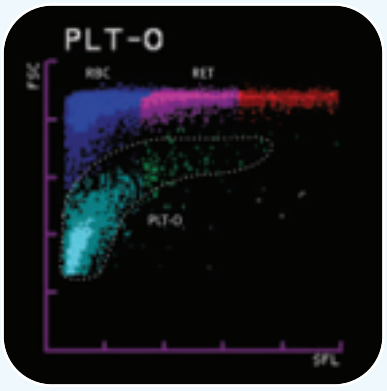
- Accurate reticulocyte counting in both % and absolute #
- Improved immature reticulocyte information (IRF) for earlier diagnosis and treatment by clinicians
- Elimination of common interferences from Howell-Jolly bodies, Pappenheimer bodies and immature reticulocytes to avoid manual counts

Reticulocyte Hemoglobin Measurement (RET-H*e*)*

RET- H*e** is a parameter measured in the reticulocyte channel and is used to measure the incorporation of iron into erythrocyte hemoglobin.

The RET-H*e* parameter supports:

- Assessment of anemia and is an established parameter used in KDOQI (Kidney Disease Outcomes Quality Initiative) guidelines for assessing the initial iron status of patients
- Rapid, direct analysis of an earlier stage of RBC development for prompt clinical follow-up
- Accuracy and sensitivity in measurement of red cell production that supports effective monitoring of costly drug protocols for cell stimulation



Fluorescent Optical Platelet

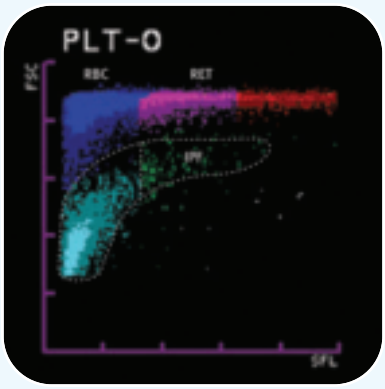
Fluorescent Optical Platelet

The XE-2100 offers both a traditional impedance count and a fluorescent optical count. The Fluorescent Optical Platelet (PLT-O) is a complementary parameter to the impedance platelet count. The instrument flagging, associated with atypical or abnormal platelets, is minimized by use of the optical platelet count. Use of the optical platelet count on patients with platelet abnormalities, improves the accuracy in reporting results.

The PLT-O parameter provides:

- Improved accuracy on low platelet counts
- Accurate counts when interferences are present, thus reducing manual intervention
- Automated judgment for reporting PLT-O or impedance PLT through instrument settings, eliminating tech-to-tech decision variability

One Comprehensive System



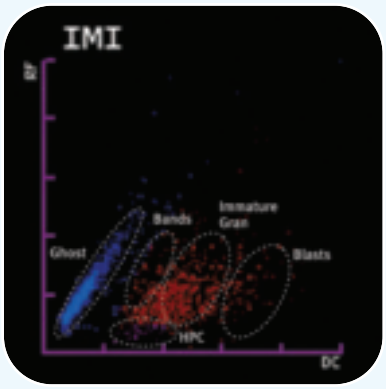
Immature Platelet Fraction

Immature Platelet Fraction*

Immature Platelet Fraction (IPF %) is a parameter used to assess thrombopoiesis.

IPF offers:

- Accuracy and sensitivity in measurement of immature platelets
- Delineation of abnormal platelet populations seen by clinicians in disease states such as AITP (autoimmune thrombocytopenic purpura) or TTP (thrombotic thrombocytopenic purpura)
- Rapid reporting of results for prompt clinical information that can potentially avoid invasive and costly procedures



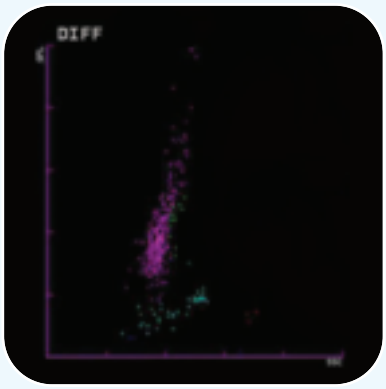
Hematopoietic Progenitor Cell Counts

Hematopoietic Progenitor Cell Counts*

The Sysmex XE-2100 offers a quantitative hematopoietic progenitor (HPC) cell count that can be used by the physician when determining the optimal time for cell harvest. The Sysmex automated HPC count is substantially equivalent to CFU and CD34+.

The HPC count from peripheral blood and cord blood samples supports:

- Quality screening information to better assist clinicians with patient treatment protocols
- Rapid analysis versus conventional methods, thereby allowing for a prompt determination of optimal stem cell harvest time
- Automation of manual processes
- Cost reduction as the system does not require additional reagents, sample volume or specific technical expertise



Body Fluid

XE-2100 Body Fluid Analysis:

The XE-2100 provides a reportable RBC and WBC count for all common body fluid samples (CSF, synovial and serous). The analyzer applies proven impedance and fluorescent flow cytometry ensuring an accurate body fluid count.

The XE-2100 Body Fluid Count Benefits:

- Improved productivity
- Decreased turnaround time (TAT)
- Decreased manual technical intervention
- No sample pretreatment
- No additional reagents

** Optional on the XE-2100*

Improved Productivity & Efficiency Maximizing Your Quality and Uptime

Productivity

The XE-2100 provides a throughput of up to 150 samples per hour, producing high-quality results rapidly for clinicians to use in diagnosis and treatment decisions.

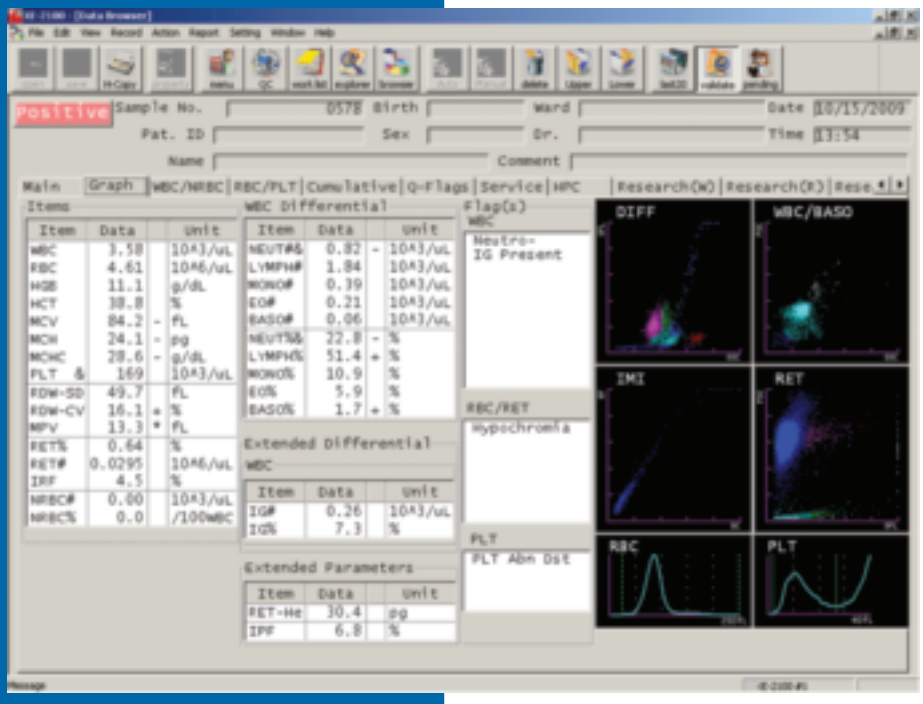
- The system is compatible with Sysmex automation platforms, providing solutions that can be scalable to meet needs of all laboratories.
- The XE-2100 can also be used in conjunction with Sysmex WAM™ Decision Support Software for the Clinical Laboratory, which enhances sample and data workflow and improves turnaround time (TAT).

Improved Patient Care

An additional benefit to the XE-2100 analyzer is the ability to analyze patient samples when only small volumes of sample are available. The capillary mode (pre-dilute analysis mode) requiring only 40µL of whole blood provides quality clinical data, rapidly and consistently.

Your Complete Choice

The XE-2100 offers a comprehensive clinical testing menu for both whole blood and body fluids, providing accurate, precise and sensitive results. With its rapid throughput, your physicians receive quality clinically relevant information to assist in management and diagnosis of all patients.



Excellent Performance

- Reliable platform
- Low sample volume requirements
- SNCS™ (Sysmex Network Communications System) remote monitoring system supporting maximum uptime
- Ranked by independent third party as highest vendor for reliability for 11 consecutive years*

**IMV ServiceTrak™ 2011*

Reportable, Diagnostic Information from a Single Sample Analysis

- 6-part whole blood WBC differential (NE + Lymph + Mono + Eo + Baso + IG) with fluorescent NRBC count
- Body fluid cell count
- Anemia evaluation parameters – Reticulocyte, IRF, and RET-He*
- Optical and Impedance Platelet measurement capabilities
- Thrombopoietic activity assessment parameters (IPF)*
- Quantitative hematopoietic progenitor cell count (HPC)*

Optional on the XE-2100

Easy-to-use

- Intuitive software menus
- On-board help key for rapid troubleshooting
- Comprehensive quality control information
- Barcoded reagent management

Sysmex XE-2100 Specifications

Principles & Technologies	Fluorescent Flow Cytometry: WBC-Diff, IG, NRBC, RET, IRF, PLT-O RF-DC method: HPC* DC-Sheath-Flow: PLT, RBC, HCT SLS-Method: Hgb
31 Whole Blood Reportable Parameters	WBC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT (Impedance and Fluorescent Optical) NEUT%, LYMPH%, MONO%, EO%, BASO%, NRBC%, NEUT#, LYMPH#, MONO#, EO#, BASO#, NRBC#, IG%, IG#, HPC#*, RDW-SD, RDW-CV, MPV, RET%, RET#, IRF, RET-He*, IPF*
Body Fluid Reportable Parameters	WBC-BF, RBC-BF
Linearity	WBC: 0 – 440.00 x 10^3/µL RBC: 0 – 8.00 x 10^6/µL PLT: 0 – 5.00 x 10^6/µL
Body Fluid Linearity	WBC-BF: >/= 0.050 x 10^3/µL RBC-BF: >/= 0.01 x 10^6/µL
Throughput	Whole Blood Mode: 150 samples/hr (max.)
Sample Volumes	200µL / 130µL (closed/open mode) 40µL for capillary mode
Data Storage (IPU: Information Processing Unit)	10,000 samples (including graphics)
Quality Control (Total QC Management)	Levey-Jennings control chart X-barM file Comprehensive QC files including "current" and "new" lot feature Online Quality Assurance Program - ***Insight™***
Interfaces	Sysmex WAM™ (HL7 & ASTM)
Dimensions / Weight w x h x d [in] / [lbs]	Main unit: 27.8" x 35.9" x 28" / 178 lbs. Sampler: 22.8" x 7.7" x 14.8" / 26 lbs. IPU: 18" x 17.6" x 5.3" / 24 lbs.
Configurations	Standalone Sysmex HST-N, AlphaN Automation

Optional on the XE-2100

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