sysmex | Lighting the way with diagnostics

Automated Immunoassay System

HISCL-5000

Speed and Reliability Matters

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Real Continuous System

HISCL-5000: Excellence Meets Innovation

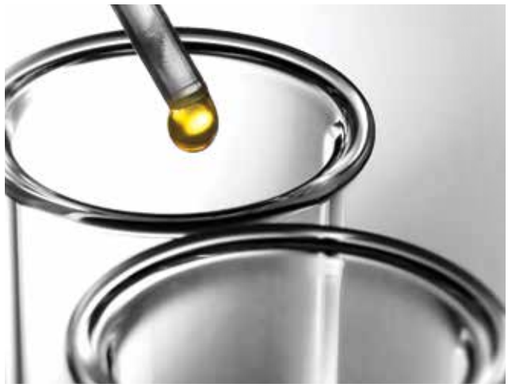
A solution that answers your needs and enhances your laboratory productivity.

HISCL-5000 is designed to provide additional value to laboratories in terms of clinical requirements, operational needs, and managerial demands. HISCL-5000 offers you a smart laboratory system with a pipeline of unique biomarkers to ensure your laboratory is prepared for new clinical solutions.

Rapid Analysis

- **High processing capacity with 200 tests per hour**
- **Time to First Result: 17 Minutes**

Equipped with innovative measurement technology that enables fast turnaround time of 17 minutes for all parameters, laboratories can now be assured of meeting their objectives of speed and throughput. Faster reporting of results enable timely patient diagnosis and treatment.



Low Sample Volume

Required sample volume of 10 – 30µL for all parameters

Sample volume from pediatric and geriatric patients are no longer a concern. HISCL-5000 can analyse all parameters with small sample volumes, requiring only 10 – 30µL using a dedicated disposable tip. It offers maximum assurance for the patient and clinician.

Customised Configuration allows Flexibility and Integrated Solutions

Highly efficient workflow automation can be customised for the fastest Turnaround Time (TAT) and utmost productivity.

Fast and flexible sample processing is achievable through optimised use of analyser capacity and intelligent sample routing.

Excellent Usability

Continuous Loading System

Twenty-four sets of assay reagents can be set up at the same time. Two sets of common washing/cleaning reagents can be simultaneously loaded. There is an automatic switching feature that allows these reagents to be replenished without interruption of sample analysis. The reagent bottle cap has automatic opening and closing mechanism that ensures stability of reagents.

User Friendly Interface

The 21-inch large colour touch screen display features an intuitive user interface design with large icons. Software functions support day-to-day operations with immediate access to information such as reagent levels and testing progress status.

Effective Reagent Management System

Reagent information management using RFID (Radio Frequency Identification) is adopted. Accurate data such as expiry date and remaining tests will be provided.

Refrigerated Reagent Storage

The reagent setting part has a function to keep reagent cool for 24 hours thus ensuring reagent stability. The instrument wake-up function offers a hassle-free daily startup at the scheduled time.

STAT Analysis Available

The *STAT* position located in the middle of the rack supply allows urgent samples to be processed.

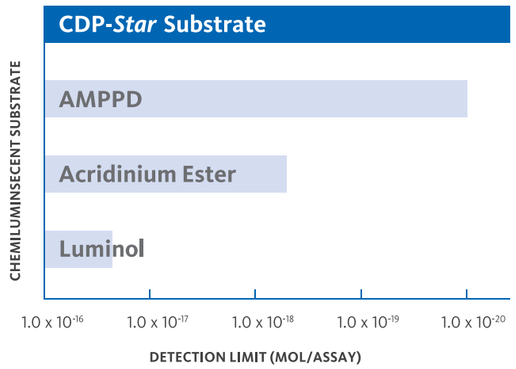
Membrane Filter Eliminates Carry-over

A membrane is used to clean the nozzle for each sample dispensing, assuring a highly-reliable system to eliminate carry-over.

Chemiluminescent Substrate CDP-*Star*

A measurement system with high sensitivity is achieved by adoption of Chemiluminescent substrate CDP-*Star* that demonstrates high luminescence intensity through its dephosphorylation by alkaline phosphatase. Strong luminescence from CDP-*Star* is efficiently detected using an optical filter. The high sensitivity and wide measurement range is key to low sample volume application.

Comparison of Detection Limit between Various Chemiluminescent Substrates for Immunoassays



High Sensitivity

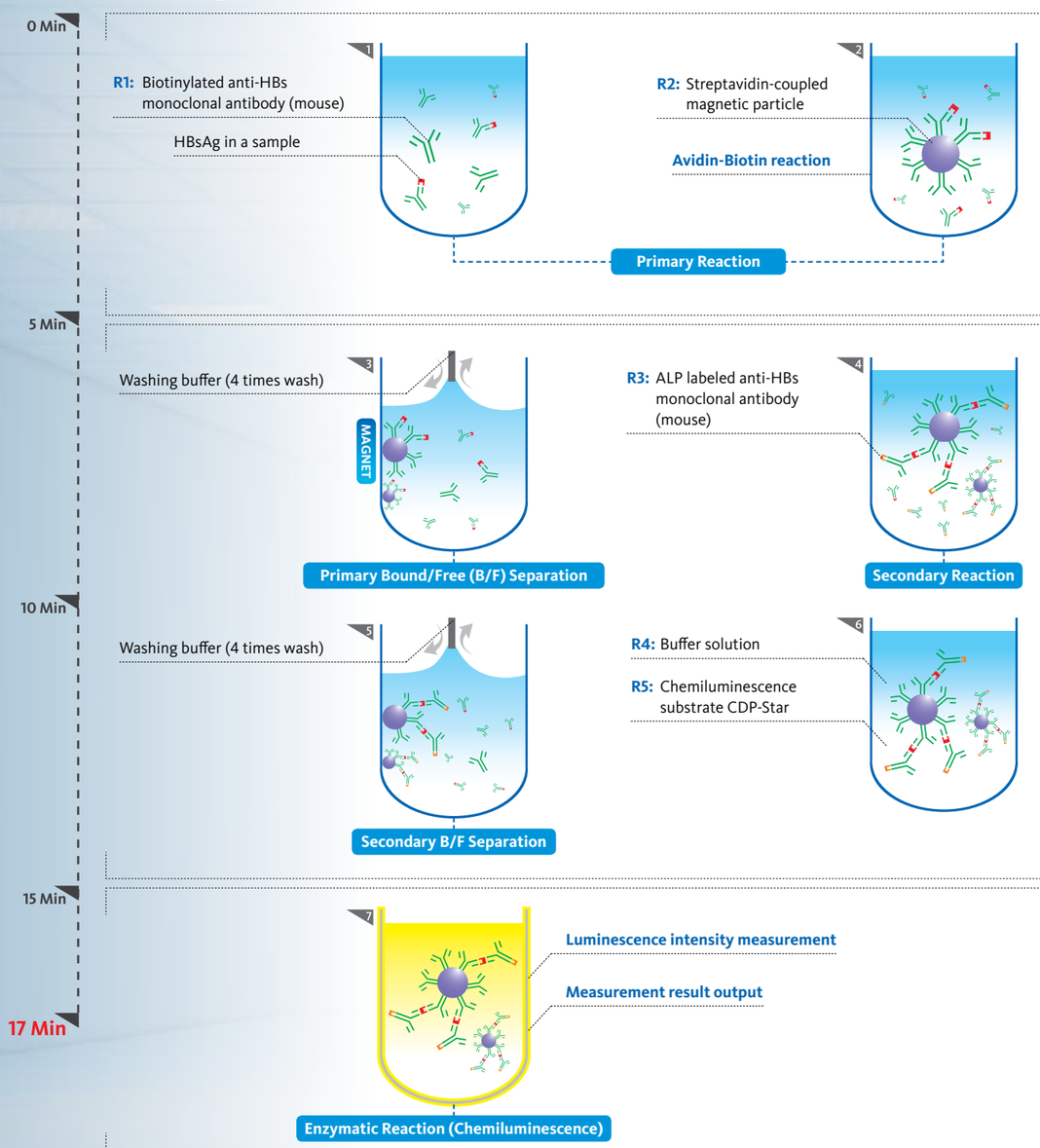
HISCL Hepatitis B Virus Surface Antigen (HBsAg) Assay Analytical Flow

The HISCL HBsAg is a 2-step competitive assay based on Chemiluminescence Enzyme Immunoassay (CLEIA) method using CDP-*Star* chemiluminescent substrate.

Improved Reaction Efficiency at 42 ºC

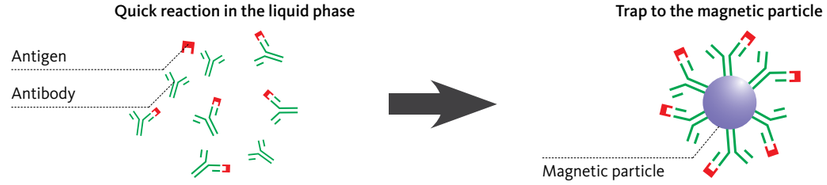
Setting the entire reaction temperature at 42˚C increases the antigen-antibody encounters, therefore it increases the efficiency of assay.

Reaction Flow (HBsAg Measurement)



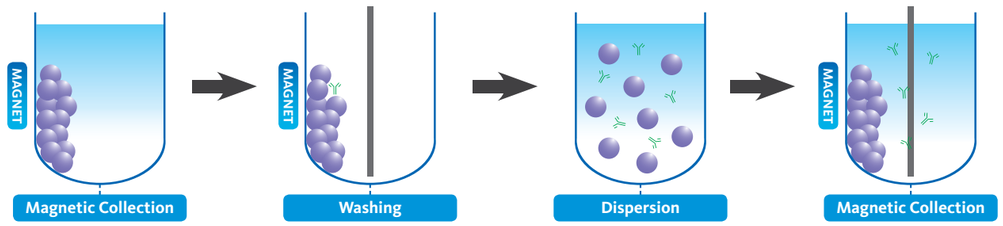
Antigen-antibody Reaction Speed Up by Liquid Phase - Liquid Phase Reaction

The liquid phase - liquid phase reaction system is adopted for primary reaction. This increases the frequency of antigen-antibody reaction.



Increased Specificity Through Background Reduction

Background influence is reduced by the improved efficiency of separation of reactants from unreacted materials (B/F separation). Each wash cycle is performed 4 times.



Wide-range Detection with an Optical Filter

Strong luminescence from CDP-*Star* is efficiently detected by using an optical filter. Highly sensitive and wide-range measurement is therefore possible.

Specifications

Measurement Principle	Chemilumniescence Enzyme Immunoassay (CLEIA)
Number of Parameters Onboard	Up to 24 parameters
Processing Capacity	200 tests per hour
Reaction Time	Approximately 17 minutes (time from sample aspiration to measurement result display)
Sample Capacity	Up to 100 samples
Number of *STAT* Positions	1 sample
Sample Volume	10-30 µL
Sample Container	Test-tube (Open) Diameter (Outside diameter): 13-16 mm Height: 75-100 mm Dead volume: The depth of the serum or plasma component from the surface of liquid is 5 mm or more Sample cup 4 mL conical cup Dead volume: 0.15 mL
Reagent Management Function	Assay reagents, Luminescence substrate set: RFID Line washer, cleaning fluid, probe washer: barcode
Sampling Monitoring System	Sample aspiration and sample abnormality monitoring via pressure sensor
Data Storage	100,000 sample results (maximum)
Quality Management	L-J (Chart) or X-bar (Chart)
External Output	RS232C, LAN
Power Supply Specifications	Measurement part: AC 200-240 V Compressor: AC 100 V Rated Frequency: 50 Hz / 60 Hz
Printing System	External printer
Accessory	Handheld barcode reader
Options	Drainage tank, indicator light, conveyance connection kit

Data

Main Unit (including the sampler)	Dimensions (W x D x H) Weight	Approximately 1,725 x 840 x 1,300 mm Approximately 490 kg
Compressor	Dimensions (W x D x H) Weight	Approximately 340 x 500 x 390 mm Approximately 28 kg

Caresphere XQC* -Successor of SNCS Online QC

Caresphere XQC Online QC is an inter-laboratory comparison tool that offers the possibility to compare internal QC results of Sysmex analysers against the affiliated or global peer group of the same analyser model using the same lot number of Sysmex QC material and measurement method. Caresphere XQC is a web-based system that is easy and convenient to use. This system is unique because it integrates daily internal QC and interlaboratory comparison for statistical analysis and the laboratory can view the processed statistical data through secure online access to Caresphere XQC.

* Caresphere XQC. The content of support services varies by region. A separate (paid) agreement is required to use this service.

Note

Design and specifications may be subject to change due to further product development.

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