

Automated Immunoassay System

# HISCL-800

Redefining Performance  
and Speed



A close-up photograph of a person wearing a white lab coat and white gloves. The person is loading a blue and white reagent cartridge into a slot on a light-colored laboratory instrument. The instrument has a curved top and a black tray at the bottom. The background is a plain, light-colored wall.

**HISCL-800 isn't Simply Compact – it's Fast and Reliable.**

Our innovative solution for your laboratory. A robust analyser with a small footprint, the HISCL-800 immunoassay analyser is designed to meet the evergrowing needs of your lab.

The HISCL-800 has inherited its design and technology from the HISCL-5000, including its reagents and consumables system.

**TECHNOLOGY YOU CAN TRUST**

### Rapid Analysis

With a fast reaction time for every parameter, it takes 17 mins to get the first test result. The HISCL-800's rapid analysis enables laboratories to meet their reporting objectives, especially for *STAT* samples.

Patient reports can be generated faster, enabling timely patient diagnosis and treatment.



### Low Sample Volume

Testing of samples from pediatric and geriatric patients is no longer a concern. The HISCL-800 requires a sample volume of only 10 to 30µL for every parameter.

### Superior Performance

#### High Sensitivity

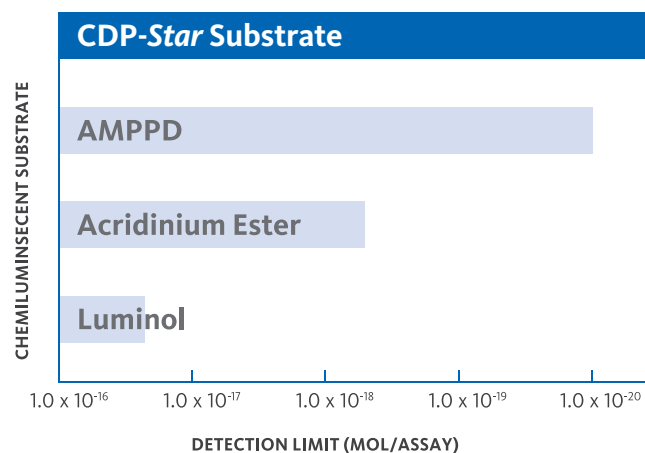
High sensitivity is achieved by adopting the brilliant CDP-*Star* chemiluminescent substrate in the measurement system.

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.

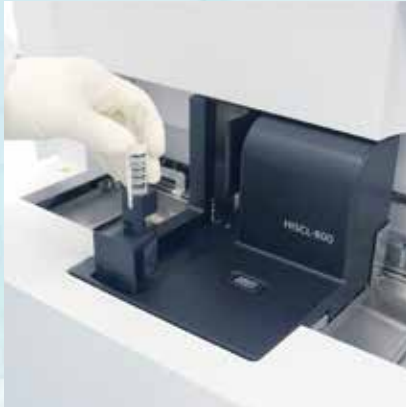
#### High Specificity

High specificity is made possible by using the bound-and-free (B/F) separation method in the washing procedure. Unreacted materials are efficiently removed, minimising non-specific reactions.

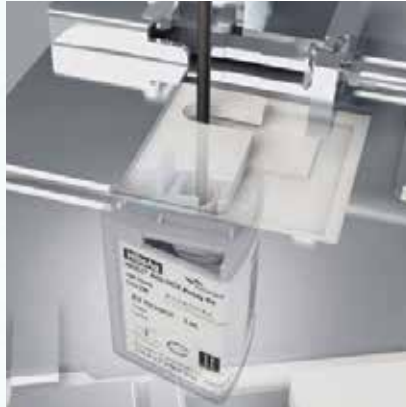
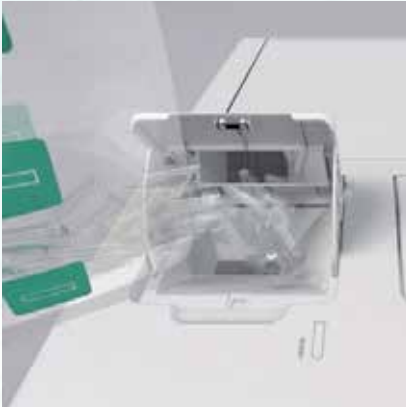
### Comparison of Detection Limit between Various Chemiluminescent Substrates for Immunoassays



# Excellent Usability







### **Convenient *STAT* analysis**

Located in the middle of the sampler, the *STAT* port is strategically positioned to allow urgent samples to be processed speedily.

### **User friendly interface**

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

### **Efficient reagent management system**

RFID (Radio Frequency identification) allows efficient management of reagents. Reagent information such as expiry date and remaining tests can be tracked with ease. The reagent compartment keeps the reagent cool for 24 hours, thus ensuring its stability.

### **Reliable anti-carry-over system**

The one-time use disposable pipette tips and reaction cuvettes eliminate carry-over in the testing system. In addition, utilising a membrane filter to clean the nozzle each time it dispenses, the HISCL-800 gives you peace of mind, assuring high quality and consistent results all the times.

# High Sensitivity

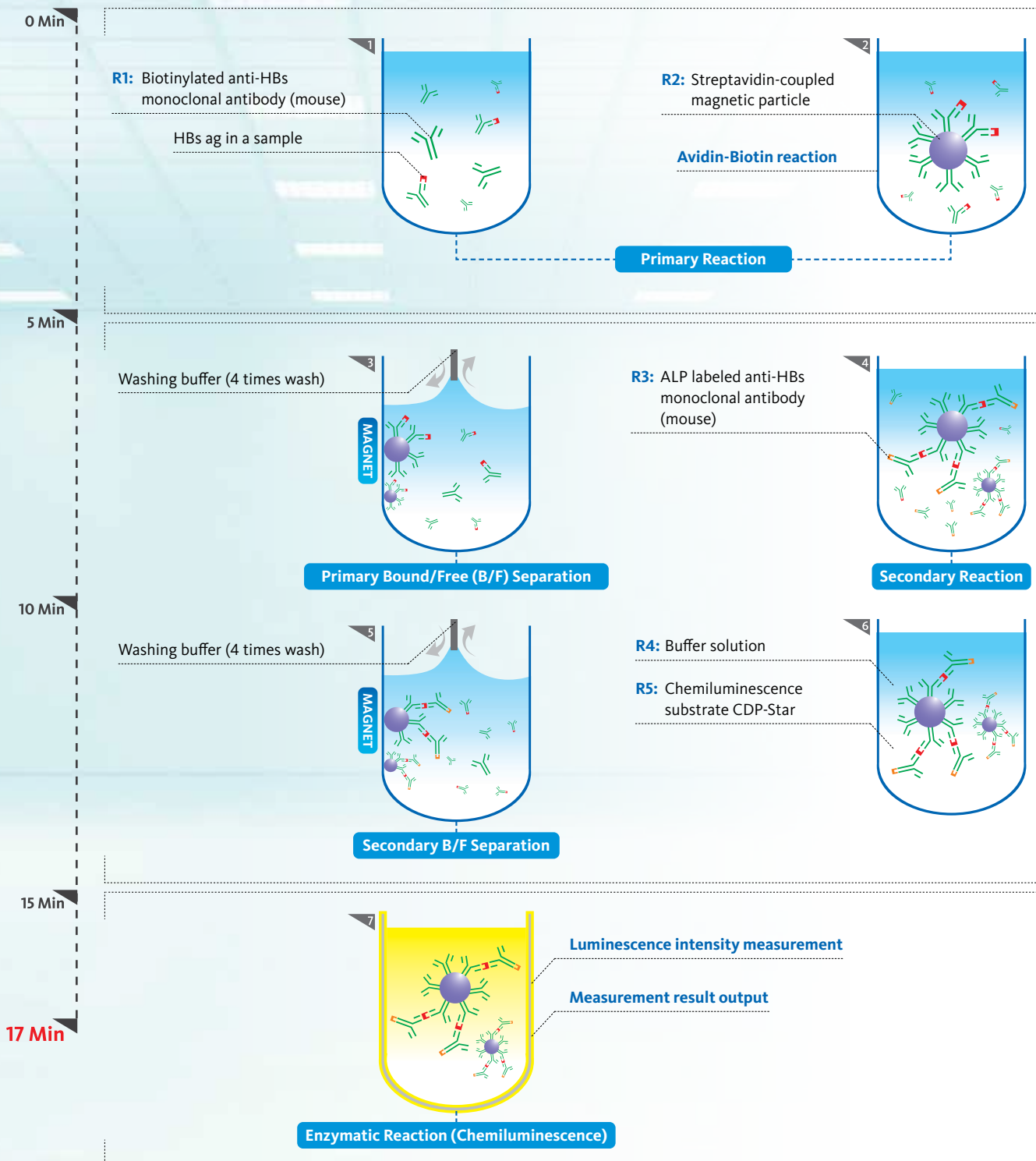
## HISCL Hepatitis B Virus Surface Antigen (HBsAg) Assay Analytical Flow

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 °C

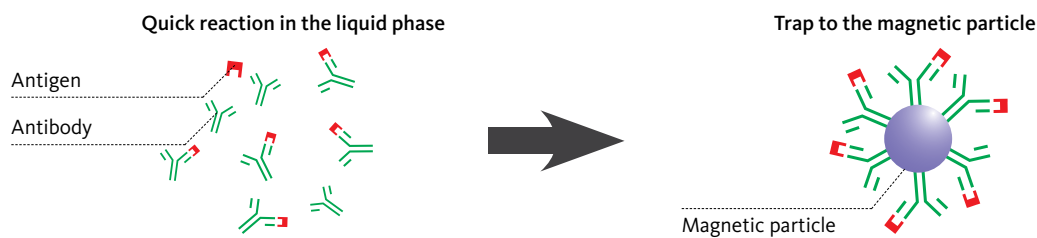
Setting the entire reaction temperature at 42 °C increases the antigen-antibody encounters, therefore it increases the efficiency of assay.

### Reaction Flow (HBsAg Measurement)



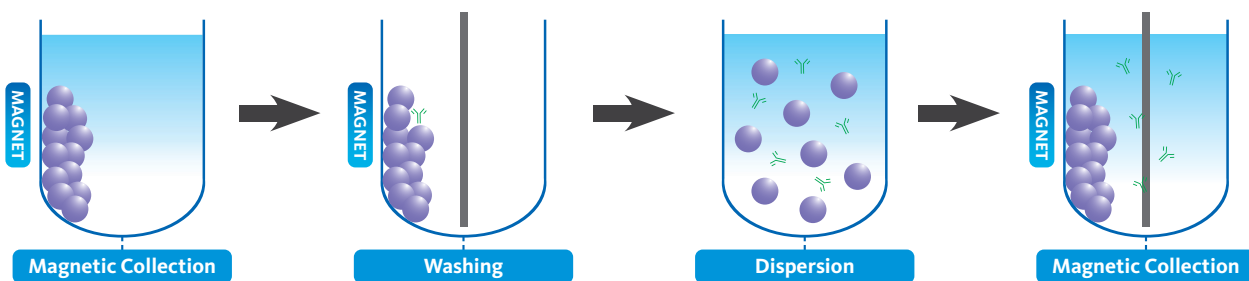
### Antigen-antibody Reaction Speed Up by Liquid Phase - Liquid Phase Reaction

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

<b>Measurement Principle</b>	Chemiluminescence Enzyme Immunoassay (CLEIA)
<b>Number of Parameters Onboard</b>	Up to 24 parameters
<b>Processing Capacity</b>	100 tests per hour
<b>Reaction Time</b>	Approximately 17 minutes (time from sample aspiration to measurement result display)
<b>Sample Capacity</b>	Up to 30 samples
<b>Number of STAT Positions</b>	1 sample
<b>Sample Volume</b>	10-30 µL
<b>Sample Container</b>	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
<b>Reagent Management Function</b>	Assay reagents, Luminescence substrate set: RFID Line washer, cleaning fluid, probe washer: barcode
<b>Data Storage</b>	100,000 sample results (maximum)
<b>Quality Management</b>	L-J (Chart) or X-bar (Chart)
<b>External Output</b>	RS232C, LAN
<b>Power Supply Specifications</b>	Analyser: AC 100-240 V AC Pneumatic Units: 220-240 V AC Rated Frequency: 50 Hz/60 Hz
<b>Printing System</b>	External printer
<b>Accessory</b>	Handheld barcode reader
<b>Options</b>	Drainage tank, indicator light

## Data

<b>Main Unit (including the sampler)</b>	Dimensions (W x D x H)    Approximately 1,018 x 1,089 x 1,295 mm Weight    Approximately 320 kg
<b>Compressor</b>	Dimensions (W x D x H)    Approximately 280 x 355 x 400 mm Weight    Approximately 17 kg

## Quick support of network utilisation - SNCS<sup>\*1</sup>

SNCS is a service that enables customers to connect their analytical equipment to the Sysmex Technical Support Center via the Internet, providing real-time external quality control, online support, Web-based information delivery, and precision management and automatic monitoring. The real-time support will contribute to construction of more comfortable and safer use environment for customers.

<sup>\*1</sup> SNCS: Sysmex Network Communication Systems (A separate [paid] agreement is needed to use this service)



**Note**



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**Systemex Asia Pacific Pte Ltd**  
Tel +65 6221-3629 Fax +65 6221-3687  
[www.systemex-ap.com](http://www.systemex-ap.com)

**Systemex India Pvt. Ltd**  
Tel +91 (22) 6112-6666  
[www.systemex.co.in](http://www.systemex.co.in)

**PT Systemex Indonesia**  
Tel +62 (21) 3002-6688 Fax +62 (21) 3002-6699  
[www.systemex.co.id](http://www.systemex.co.id)

**Systemex (Malaysia) Sdn Bhd**  
Tel +60 (3) 5637-1788 Fax +60 (3) 5637-1688  
[www.systemex.com.my](http://www.systemex.com.my)

**Systemex New Zealand Ltd**  
Tel +64 (9) 630-3554  
[www.systemex.co.nz](http://www.systemex.co.nz)

**Systemex (Thailand) Co., Ltd**  
Tel +66 (2) 032-2536 Fax +66 (2) 116-5396  
[www.systemex.co.th](http://www.systemex.co.th)

**Systemex Philippines Inc.**  
Tel +63 (2) 621-2460 Fax +63 (2) 621-2432  
[www.systemex.com.ph](http://www.systemex.com.ph)

**Systemex Vietnam Co., Ltd**  
Tel +84 (8) 3997-9400 Fax +84 (8) 3997-9405  
[www.systemex.com.vn](http://www.systemex.com.vn)

**Systemex Vietnam Co., Ltd (Hanoi Branch)**  
Tel +84 (4) 3776-7020 Fax +84 (4) 3776-7022  
[www.systemex.com.vn](http://www.systemex.com.vn)

**Systemex Australia Pty Ltd**  
Tel +61 (2) 9016-3040  
[www.systemex.com.au](http://www.systemex.com.au)