Specifications

Principle
Ion exchange
High performance liquid chromatography (HPLC)

Test Modes
Normal/ Variant/ Thalassemia Mode

Analytes
HbA1c（Normal / Variant Mode）
HbA1c, HbF, HbA2 (Thalassemia Mode）

Sample Type
Whole blood/diluted blood

Sample Volume
3 μL

Linear Range
HbA1c: 2.8%-18.4% (Normal / Variant Mode)
HbA1c: 3.8%-18.4%（Thalassemia Mode）
HbF: 1.0%-16.5%（Thalassemia Mode）
HbA2: 1.5%-11.4%（Thalassemia Mode）

Linear Correlation
$r^2 \geq 0.99$

Consumables
Column/Filter

Configuration
LIS connection
USB communication port

Working Environment
10 ~ 30°C

Dimensions:
564mm x 560mm x 458mm

Weight:
52kg

Power Supply:
100-240V, 50/60Hz

Test Duration
60s: Normal Mode
96s: Variant Mode
390s: Thalassemia Mode

Reaction temperature:
37 ± 0.1 ℃

Others
Color LCD touch screen; Thermal Printer
Reagent Barcode Reader

Mode-Specific Materials

Mode	Column	Reagent	Calibrator	QC
Normal Mode	Column A	Normal	Normal	Normal
Variant Mode	Column B	Variant	Normal (with variant mode assigned values)	Normal (with variant mode target values)
Thalassemia Mode	Column A	Thalassemia	Thalassemia	Thalassemia

Normal Mode – Routine HbA1c testing.
Variant Mode – Enhanced separation for suspected hemoglobin variants (e.g., HbS, HbC, HbE); on-screen Variant Risk alert with "*".
Thalassemia Mode – Simultaneous quantification of HbA1c, HbA2, HbF in one run.

CONTACT

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Your Path to Accurate Diagnostics

Triple-Mode HPLC HbA1c Analyzer
One platform, three clinical needs

GSH-60

Automatic HPLC
HbA1c Analyzer

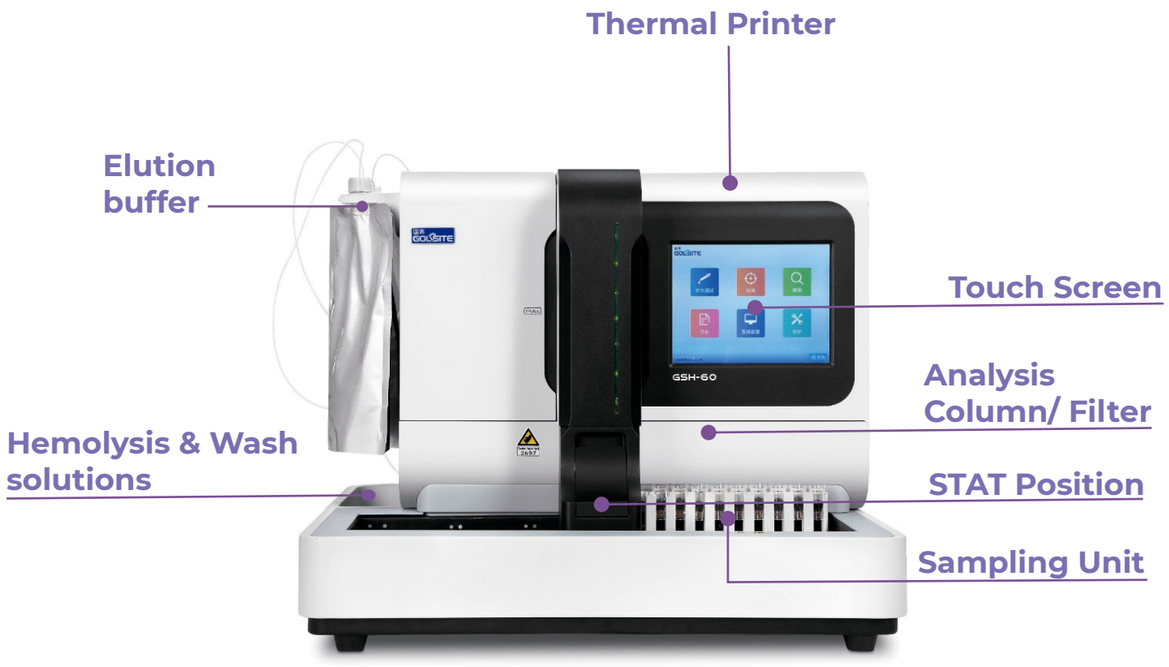
HbA1c, Glycated haemoglobin, reflects average glucose level over the previous 8-12 weeks. It can be performed at any time of the day and does not require any special preparation such as fasting. These characteristics have made it preferred test for assessing glycemic control in people with diabetes.

GOLDSITE

HPLC methodology

GSH-60 applies HPLC (High-Performance Liquid Chromatography) to separate HbA1c directly, resulting in dramatic improvement in efficiency and precision.

HPLC methodology utilizes the isoelectric differences between different hemoglobin fractions to separate and quantify the HbA1C. HPLC method is the gold standard for measuring HbA1c and has been regarded as the consensus method by the National Glycohemoglobin Standardization Program (NGSP). GSH-60 is dual certificated by NGSP and IFCC. The GSH-60 HbA1c Analyzer offers three specialized modes—Normal Mode for routine HbA1c testing, Variant Mode for enhanced detection of hemoglobin variants (e.g., HbS, HbC, HbE), and Thalassemia Mode for precise quantification of HbA2, HbF, and HbA1c—ensuring accurate and tailored diagnostics for diverse clinical needs.



Features

Accurate & Precise

- Excellent precision
- Broader test range
- Goldsite self-developed high-performance column, Capable of separating different hemoglobin fractions.

High Efficiency

- Testing time as short as 1 min
- STAT position supported.
- 110 sample positions with automatic loading function.

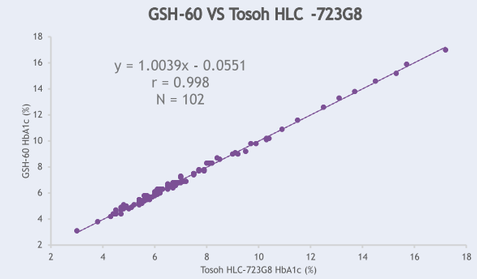
Prolonged Lifespan

- Column can be reused for 8000 times
- Smart liquid path washing system prevents unnecessary reagent-consuming.
- Upgraded reagent extends the life span of column.

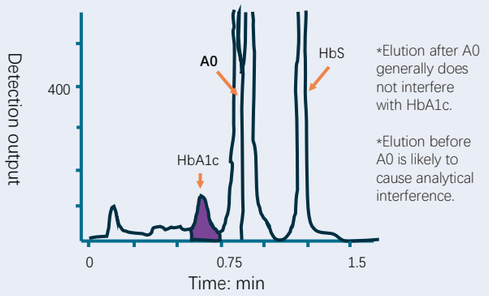
Easy Maintenance

- Daily maintenance conducted automatically by the machine.
- Power-saving auto wake-up when loading sample.
- 4~12 Mpa high pressure pump offers steady output and reduce pipe blockage.
- Compatible with barcode reader that facilitates reagent information management

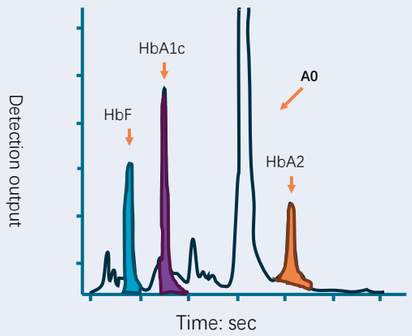
Performance Comparison



Sample Chromatogram



Variant mode: A1c sample in the presence of HbS



Thalassemia mode: Sample from a β -thalassemia trait