G8 HPLC ANALYZER

Gold Standard Accuracy by Ion-Exchange HbA1c

PRECISE CHROMATOGRAPHIC DETAIL
HbA1c analysis in 1.6 minutes

Direct determination of stable HbA1c

Less than 2% CVs

Compact footprint - 21”w x 20”d x 19”h

Simple touch-screen operation

Automated daily maintenance

Flexible tube sizes
Evolution at its best...
Faster, Easier, Smaller

G8 HPLC ANALYZER

Contributing to team-based diabetes care and improvements in patient services

The significance of HbA1c for monitoring the glycemic status in the control of diabetes has increased with the continuing rise in the number of people with the disease.

From Tosoh, a world leader in HPLC technology, comes the latest model of glycohemoglobin analyzers: the Tosoh Automated Glycohemoglobin Analyzer HLC-723G8.

Providing fast HbA1c results, with CVs of less than 2%, the G8 is the perfect solution for improving diabetic patient care.
Fast
The time to first result is 3.5 minutes. Analysis time is only 1.6 minutes.

Feature Enhancements
A new calibration check function utilizes a pop-up window to display standard values during calibration. Features also include a flag check function with user-selectable levels, buffer monitoring and an automatic prime function. Tosoh designed G8 functions from the user perspective, enhancing overall safety and convenience of operation.

Simple Operation
- Touch screen
- Direct primary tube sampling/cap-piercing
- Automatic start-up
- No sample pre-treatment

Gold Standard Technology
Ion-exchange HPLC is the gold standard for HbA1c measurement. Ion-exchange HPLC was used in the DCCT* study undertaken in the United States.

*Diabetes Control and Complications Trial
**Accurate and Precise**
The G8 provides direct determination of stable HbA1c (SA1c) with less than 2% CVs. Through Tosoh’s development of a non-porous ion exchange HPLC column, HbA1c results are not clinically affected by the presence of most hemoglobin variants or hemoglobin derivatives.

![Graph](image)

**Compact Benchtop Size**
The instrument has a footprint of ~ 20 square inches and weighs only 75 lbs. The G8’s compact size makes it an easy fit into any location.

![Image](image)

**Flexible**
A variety of different sized tubes can be loaded continuously. The operator can also run primary and secondary tubes in the same rack. The G8 easily adapts to changing laboratory workloads by offering a choice of either a 90 sample loader or a 290 sample loader. With the optional LA model linked via a sample belt line, no workload is too large.
SPECIFICATIONS

Analytes: HbA1c (SA1c), HbF, HbA1 (Total A1)

Principle: Ion-exchange high performance liquid chromatography
Visible two-wavelength absorption

Sample requirement: Whole blood or diluted blood (Preserved with EDTA)

Sampling volume: Whole blood: 4 μL
Diluted blood: 80 μL

Throughput: 1.6 minutes per sample

Data storage: On-board memory: up to 800 samples

Main unit
Sampling: Cap-piercing of primary sample tubes
Whole blood: Automatic dilution by Hemolysis and Wash solution in the dilution port

Column oven: Thermomodule in aluminum block
Column connection: Finger-tight type
Detector unit: LED colorimetric detector

Sample loading units
Sample loading capacity:
G8-90SL: 90 samples plus one STAT sample
G8-290SL: 290 samples plus one STAT sample

Sample holding: 10 samples/rack
Sample vial: 12-15 mm x 75-100 mm primary tubes and Tosoh vials

Barcode specifications: NW-7, CODE39, ITF, CODE128, JAN, COOP 2 of 5, Industrial 2 of 5

System control/Data processing
Display & Input: Liquid crystal display touch panel
Output: Thermal printer (roll paper), SmartMedia or LIS
Communication: RS-232C standard serial (bi-directional)
Operating temperature: 15 - 30 °C
Power requirement: AC 100 - 240 V, 50/60 Hz, 180 VA

Dimensions/Weight
90SL model:
W 21" (530 mm) x D 20" (515 mm) x H 19" (482 mm)
75 lbs (34.0 kg)

290SL model:
W 44" (1120 mm) x D 21" (530 mm) x H 19" (482 mm)
114 lbs (51.5 kg)

PART NUMBERS/DESCRIPTION
021560  HLC-723G8 (Main Unit)
021561  G8-90SL (90 Sample Loader)
021562  G8-290SL (290 Sample Loader)
021955  TSKgel G8 Variant HS (Analysis Column)
021956  G8 Variant Elution Buffer HSi No. 1 (S)
021957  G8 Variant Elution Buffer HSi No. 2 (S)
021958  G8 Variant Elution Buffer HSi No. 3 (S)
018431US  HSi Hemolysis & Wash Solution (L)
018767  HbA1c Calibrator Set
992133  HbA1c Control

PERFORMANCE DATA

INTRA-ASSAY PRECISION

<table>
<thead>
<tr>
<th>Number of Replicates</th>
<th>Mean (%HbA1c)</th>
<th>Standard Deviation</th>
<th>Coefficient of Variation (%)</th>
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<td>20</td>
<td>5.07</td>
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<td>20</td>
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SA1c% CORRELATION

REPRODUCIBILITY

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