



# G8

HPLC ANALYZER

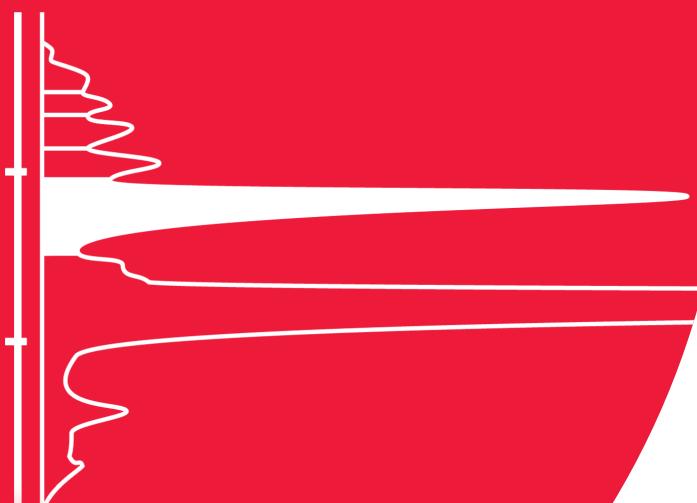
See **More than**  
an A1c Number



**TOSOH BIOSCIENCE**



Tosoh G8 delivers HbA1c results with a detailed graphic representation of the patient, allowing you to see all that is behind the number.



# G8



## Speed

HbA1c analysis in 1.6 minutes



## Precision

Less than 2% CVs



## Low Maintenance

Automated daily and monthly maintenance

- Gold Standard HPLC Methodology
- Time tested Coefficient of Variation (CV) of less than 2%
- Proven track record of instrument reliability
- Method of choice for accurate A1c results without common hemoglobin variant interference
- The G8 grows with your needs and is an ideal partner for laboratories with Track Line Automation needs

# Accurate, Reliable and Efficient

## COMPACT AND FLEXIBLE

- Small benchtop footprint that fits into any laboratory:  
21" w x 20" d x 19" h
- Weighs only 75 lbs
- Scalable in volume with compatibility with third party track lines

## MINIMAL MAINTENANCE

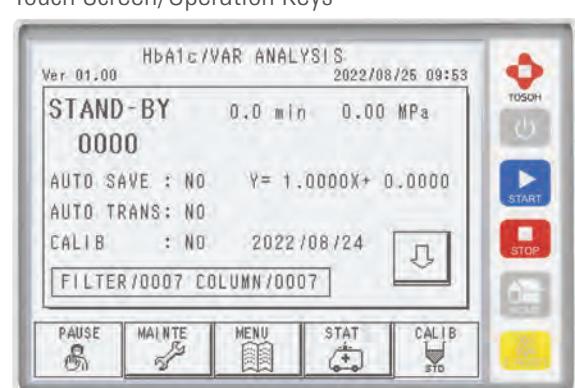
- High Mean Time Between Failure (MTBF)
- $\leq 1$  service calls per year
- Minimal instrument downtime
- Cost savings

## STREAMLINED WORKFLOW

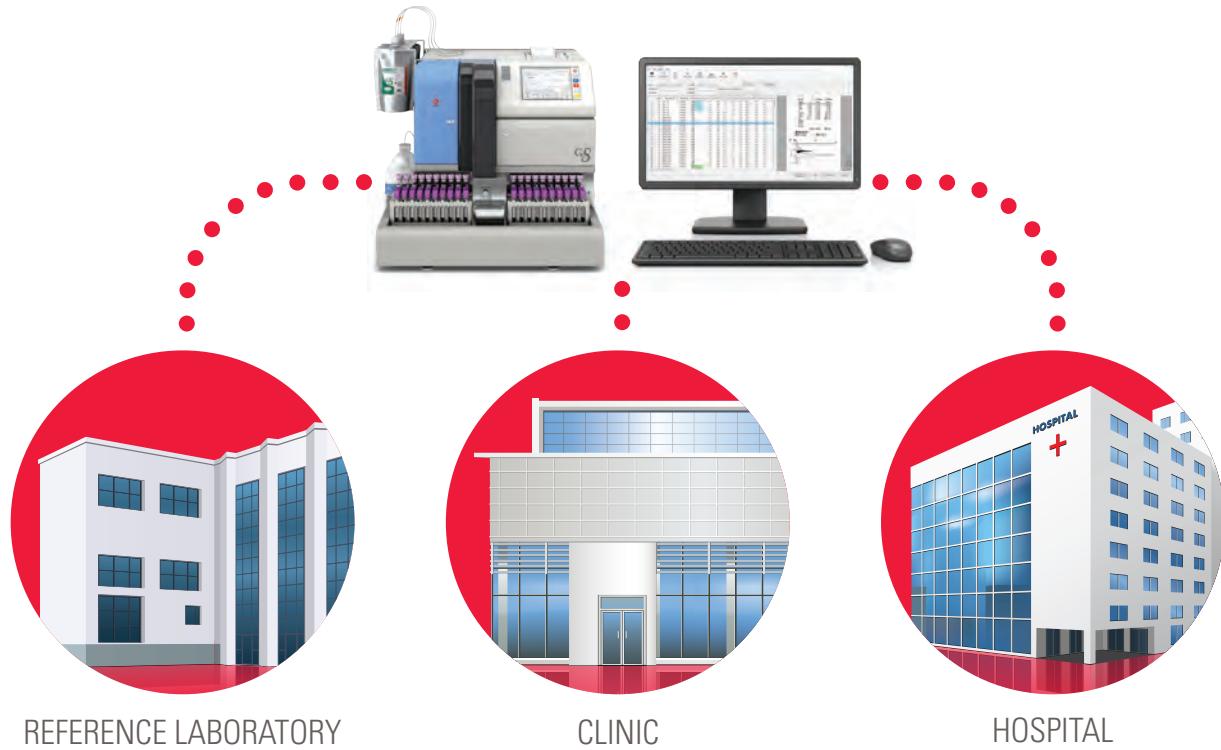
- No manual cap piercing/sample pre-treatment
- Continuous sample loading
- Positive sample identification
- Result validated autoverification
- Minimum hands-on time

## SIMPLIFIED OPERATION

- Touch screen
- User-friendly interface
- Automated start-up and daily maintenance
- Automated primary tube sampling



# Adaptable to All Workload Volumes



**WITH AN INCREASE IN DIABETICS**, laboratories are experiencing an increase in the volume of A1c testing. The Tosoh G8 is a perfect solution for outpatient clinics, hospitals and large laboratory consolidated set-ups.

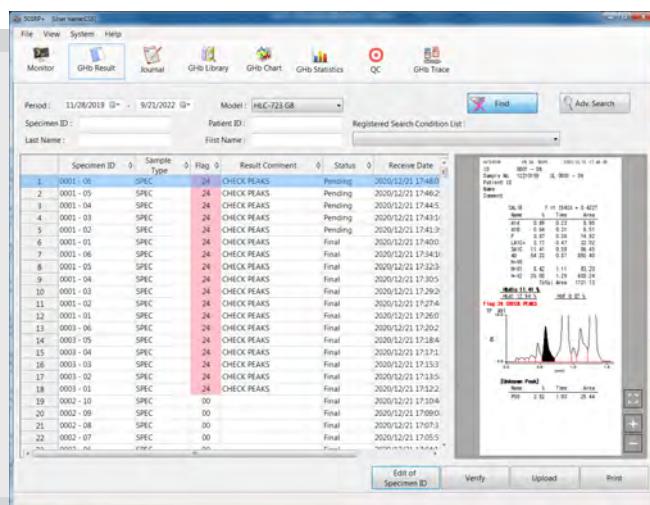
The Tosoh G8 fits seamlessly on third-party track lines for a complete laboratory automation experience.



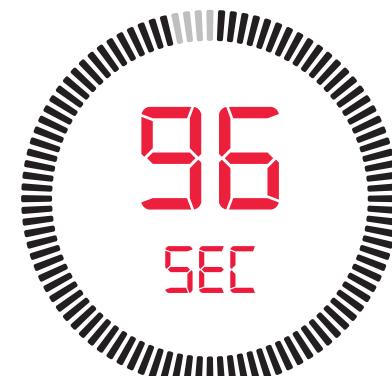
## Powerful Middleware

With the power of the 501RP+ middleware solution, the efficiencies in your laboratory, from sample processing to result reporting, have just gotten even better.

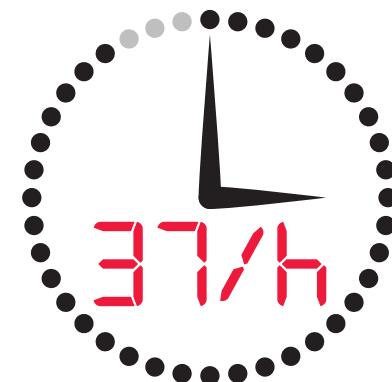
- Paperless chromatography
- Auto verification by filtering results
- Reagent and data traceability
- Centralized QC and Levy-Jennings graphs



## Fast Turnaround Time



RESULTS IN 96 SECONDS



37 RESULTS PER HOUR

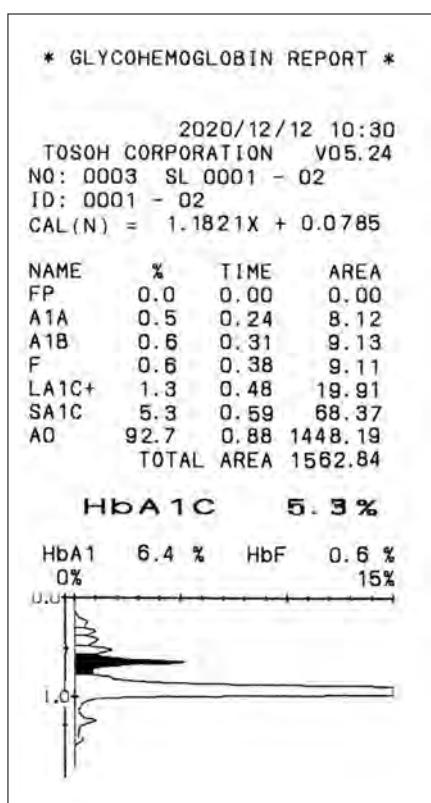
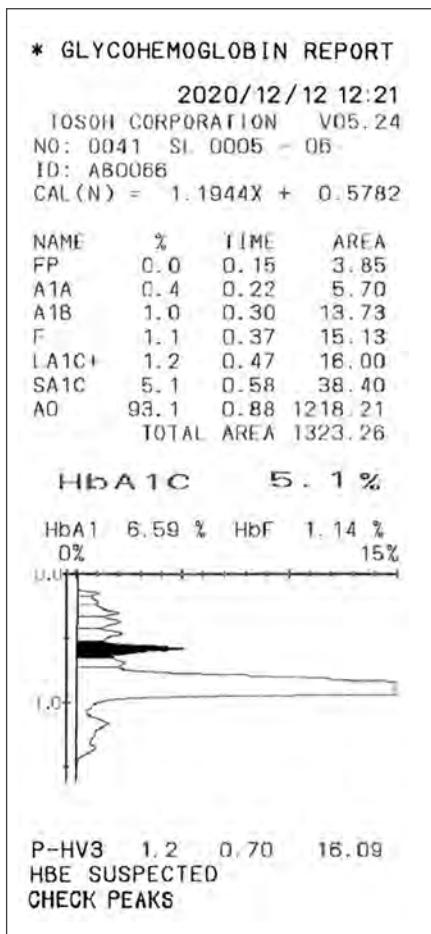


## Confidence to the Core

The core of the G8 is Tosoh's proprietary cation exchange HPLC column packed with non-porous resin. With over 30 years of HPLC experience, the G8 analyzer continues to use its in-house developed ion-exchange HPLC column to provide clear and true separation chromatography. The HPLC technology is considered gold standard technology and has been used in pioneer studies like the DCCT\*.

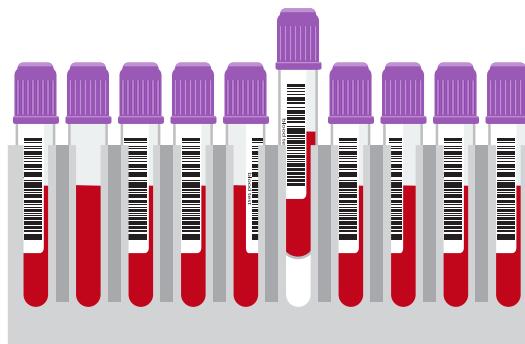
\*Diabetes Control and Complications Trial

# Get the Complete Picture with Tosoh HPLC



## RELIABLE A1C RESULTS

- Clear separation between labile A1c (LA1C or LA1c) and stable A1c (SA1C or sA1c)
- HbAD, HbAS, and HbAC separated from A0 peak
- Reportability of HbA1c in the presence of HbAS, HbAC HbAD, HbAE and HbF (up to 25%)
- Reportability of HbA1c in the presence of labile Hb acetylated Hb, aldehyde Hb and carbamylated Hb

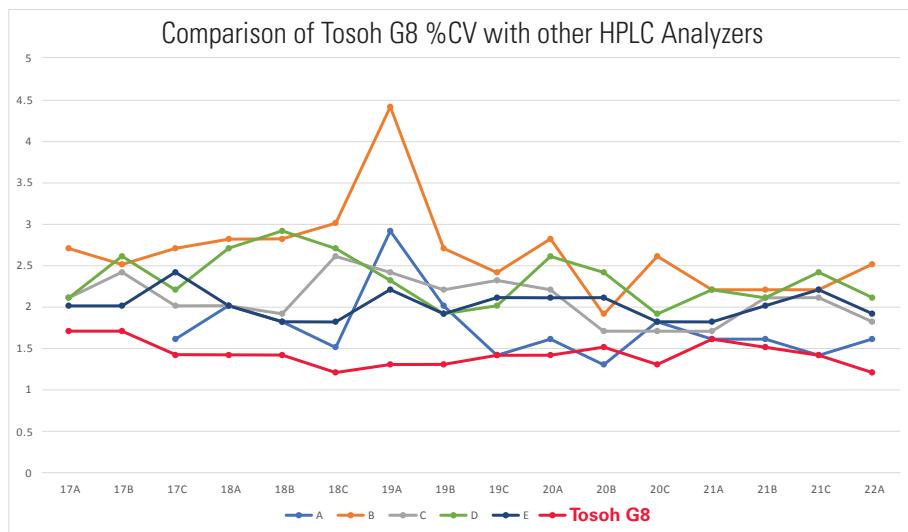


## DETAILED CHROMATOGRAPHIC RESULT

- Renowned precision, efficiency, and separation
- High resolution chromatograms
- Detailed report showing current calibration and characteristics (retention, percentage, and retention time of each fraction)
- Value of HbA1c %

# Tosoh HPLC - Your Key to a Reliable A1c Result

Historically Consistent CVs Year after Year of less than 2%



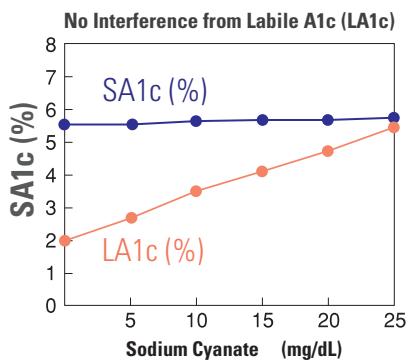
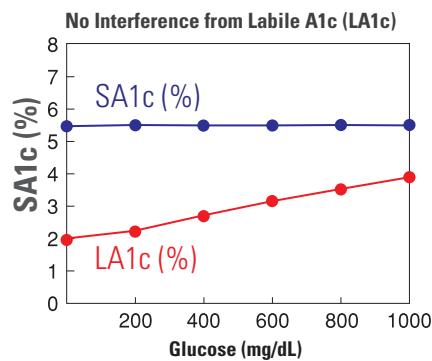
Reference: CAP Survey data: 2017 to 2022

## In-house Precision Data

Mean HbA1c	%CV (Total)
5%	0.97
6.5%	1.04
8%	1.28
12%	0.87

Summary of between Lot, Day, Run and Analyzer.

## No Interference from Labile A1c



The G8 provides direct determination of stable HbA1c (SA1c) with less than 2% CVs. The HbA1c results are not clinically affected by the presence of most hemoglobin variants or hemoglobin derivatives.

## Tosoh HPLC - Brings Valuable Information to the Forefront

Method	Ability to detect common hemoglobin variants and HbF	Interference from elevated HbF
Tosoh Ion-Exchange HPLC	Yes	>25%
Immunoassay*	No	>10-15%
Enzymatic*	No	>10-15%
Boronate Affinity*	No	>15%

\* Manufacturers' package inserts have variable claims for tolerance limits to HbF

## Technical Specifications

### Analytics

HbA1c (SA1c), HbF, HbA1 (Total A1)  
Ion-exchange high performance liquid chromatography

### Principle

Visible two-wavelength absorption

### Sample Requirement

Whole blood or diluted blood (K2/K3 EDTA)

### Sampling Volume

Whole blood: 4  $\mu$ L

Diluted blood: 80  $\mu$ L

### 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 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 and one STAT position

### 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 paper (roll paper), USB, LIS or 501RP+

### Communication

RS-232C serial standard (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)

### Sysmex Model

W 21" (530 mm) x D 17" (428 mm) x H 19" (482 mm)  
75 lbs (34.0 kg)

### LA Model

W 21" (530 mm) x D 29" (723 mm) x H 19" (482 mm)  
79.4 lbs (36.0 kg)

## Part Number & Description

0021560 HLC-723G8 (Main Unit)

0021674 G8-LA (Line Automation)

0021561 G8-90SL (90 Sample Loader)

002800 G8-Sysmex

0021955 TSKgel G8 Variant HSi (Column)

0021956 G8 Variant Elution Buffer HSi No. 1

0021957 G8 Variant Elution Buffer HSi No. 2

0021858 G8 Variant Elution Buffer HSi No. 3

018431US HSi Hemolysis & Wash Solution

0018767 Hemoglobin A1c Calibrator Set

220232 Hemoglobin A1c Control

## HbA1c Calibrator Set



## HbA1c Control



## Analysis Column



## Elution Buffers (Variant Analysis Mode) and Hemolysis & Wash Solutions



**For more information, call 1.800.248.6764**

Tosoh products are for Prescription use only as In-Vitro Diagnostics



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LBL-00194 [3]

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