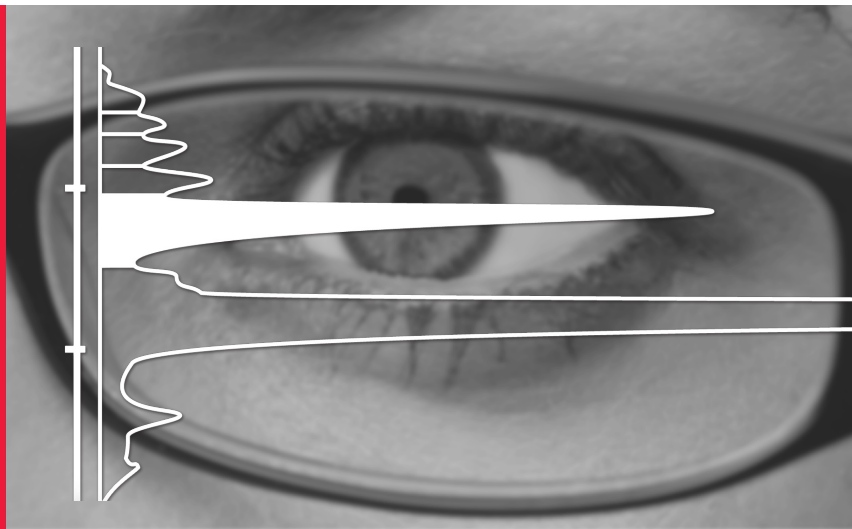




TOSOH

# See More than an A1c Number

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



## G8 HPLC ANALYZER

- 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



### Speed

HbA1c analysis  
in 1.6 minutes



### Precision

Less than 2% CVs



### Low Maintenance

Automated daily and  
monthly maintenance

**TOSOH BIOSCIENCE**

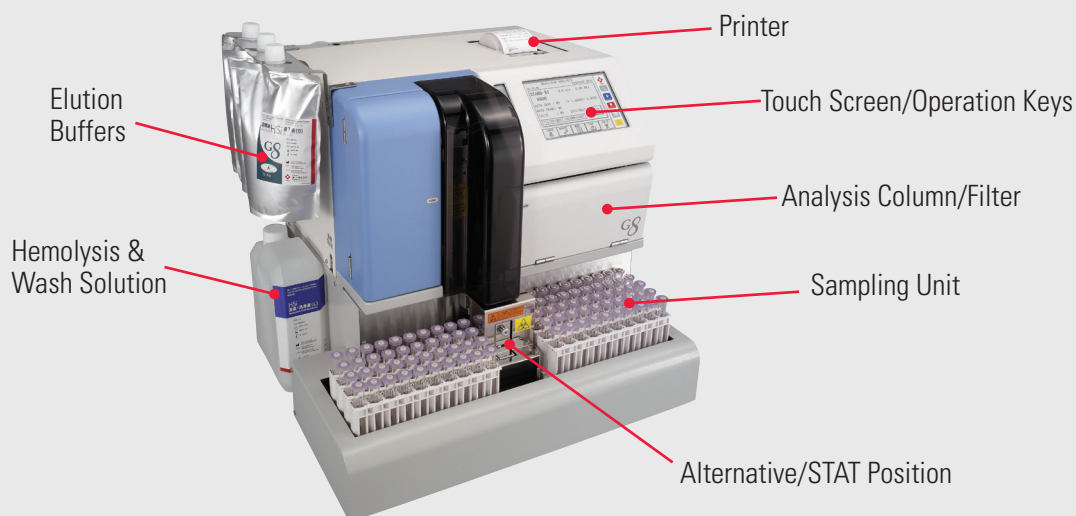
# Accurate, Reliable and Efficient

## 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)
- Proven record of over 300 days MTBF
- ≤1 service calls per year
- Minimal instrument downtime
- Cost savings

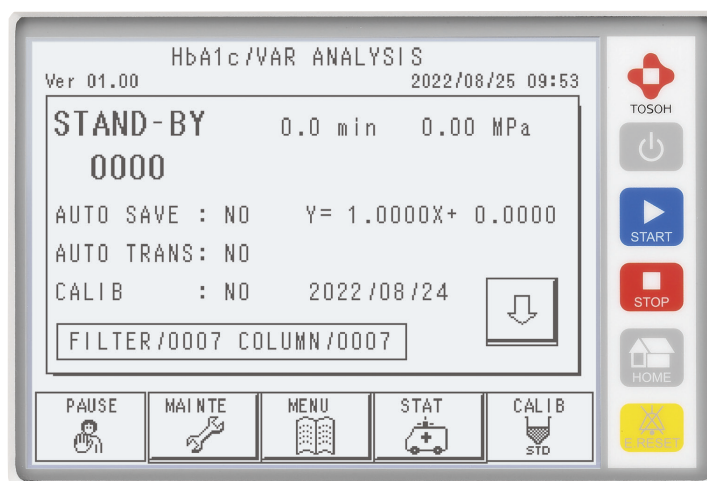


## Streamlined Workflow

- 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



## Reference Laboratory

## Clinic

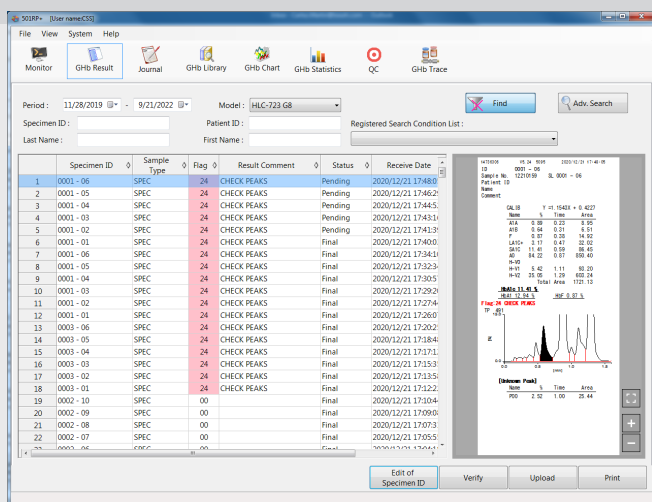
## Hospital



## 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

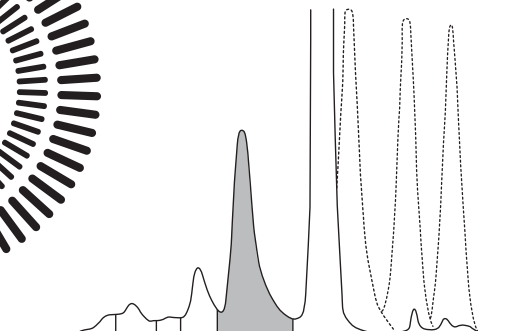
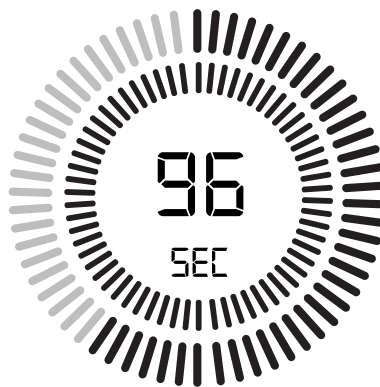
With the power of the 501RP+ middleware solution, the efficiencies in your laboratory, from sample processing to result reporting, have just gotten even better.

- 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



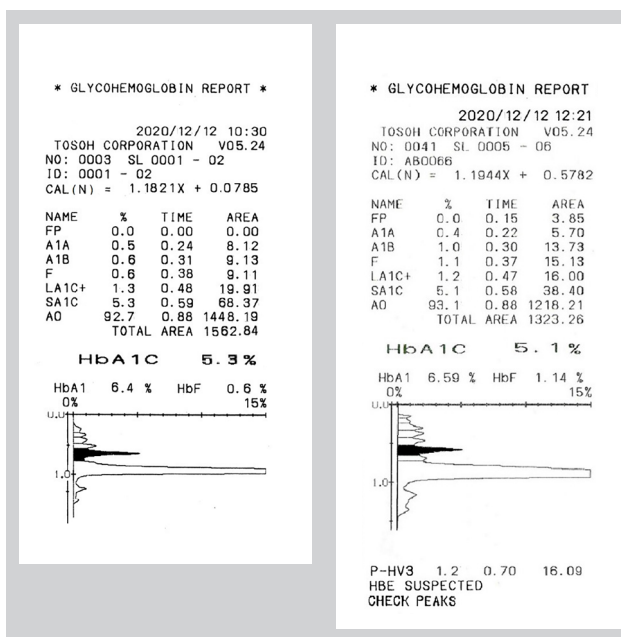
# Get the Complete Picture with Tosoh HPLC

## 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

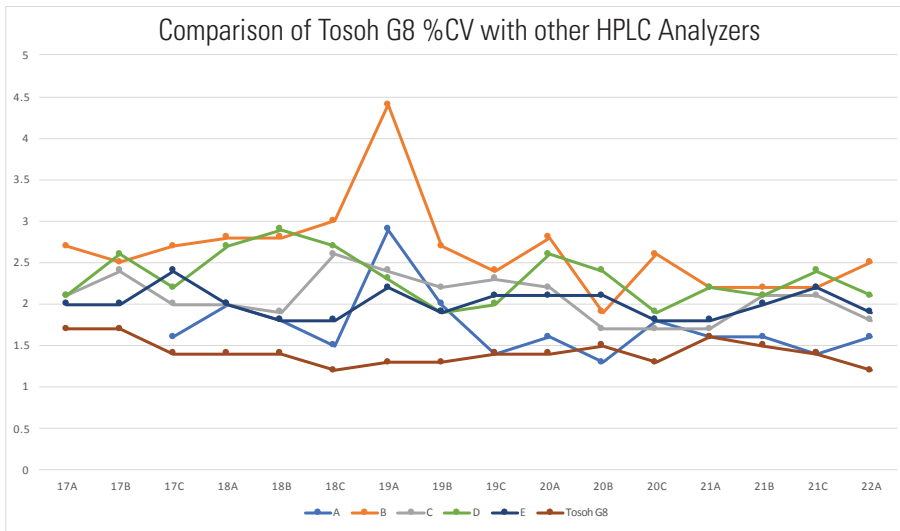
## Detailed Chromatographic Result

- 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%**



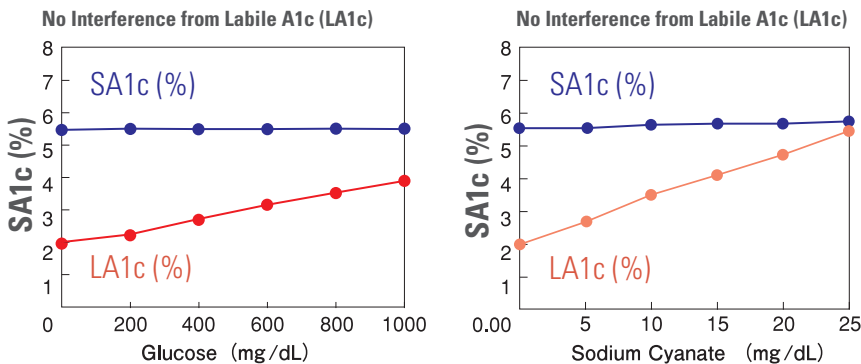
Reference: CAP Survey data: 2017 to 2022

## 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

|                    |   |
|--------------------|---|
| Analytes           | HbA1c (SA1c), HbF, HbA1 (Total A1)                  |
| Principle          | Ion-exchange high performance liquid chromatography |
| Sample Requirement | Whole blood or diluted blood (K2/K3 EDTA)           |
| Sampling Volume    | Whole blood: 4 µL<br>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 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<br>G8-290SL: 290 sample 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)<br>75 lbs (34.0 kg)   |
| 290SL Model | W 44" (1120 mm) x D 21" (530 mm) x H 19" (482 mm)<br>114 lbs (51.5 kg) |
| LA Model    | W 21" (530 mm) x D 29" (723 mm) x H 19" (482 mm)<br>79.4 lbs (36.0 kg) |

**For more information, call 1.800.248.6764**

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

# TOSOH BIOSCIENCE

[www.tosohbioscience.us](http://www.tosohbioscience.us)

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LBL 00194 Rev 2.0

## PART NUMBER & DESCRIPTION

|          |                                     |
|----------|-------------------------------------|
| 021560   | HLC-723G8 (Main Unit)               |
| 021674   | G8-LA (Lab Automation)              |
| 021561   | G8-90SL (90 Sample Loader)          |
| 021562   | G8-290SL (290 Sample Loader)        |
| 021955   | TSKgel G8 Variant HSi (Column)      |
| 021956   | G8 Variant Elution Buffer HSi No. 1 |
| 021957   | G8 Variant Elution Buffer HSi No. 2 |
| 021858   | G8 Variant Elution Buffer HSi No. 3 |
| 018431US | HSi Hemolysis & Wash Solution       |
| 018767   | Hemoglobin A1c Calibrator Set       |
| 220232   | Hemoglobin A1c Control              |

### HbA1c Calibrator Set



### HbA1c Control



### Analysis Column



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

