



TOSOH

G8
HPLC ANALYZER

See **More than**
an A1c Number



TOSOH BIOSCIENCE



G8



Speed

HbA1c analysis
in 1.6 minutes



Precision

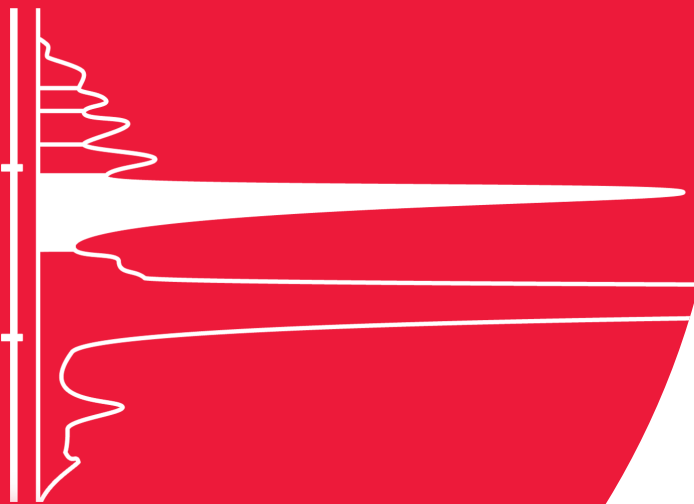
Less than 2% CVs



Low Maintenance

Automated daily and
monthly maintenance

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



- 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

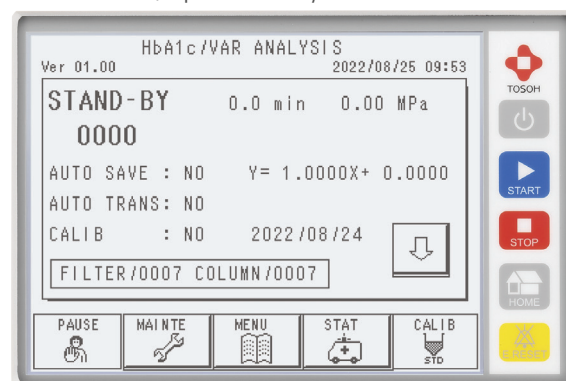
- High Mean Time Between Failure (MTBF)
- ≤1 service calls per year
- Minimal instrument downtime
- Cost savings

STREAMLINED WORKFLOW

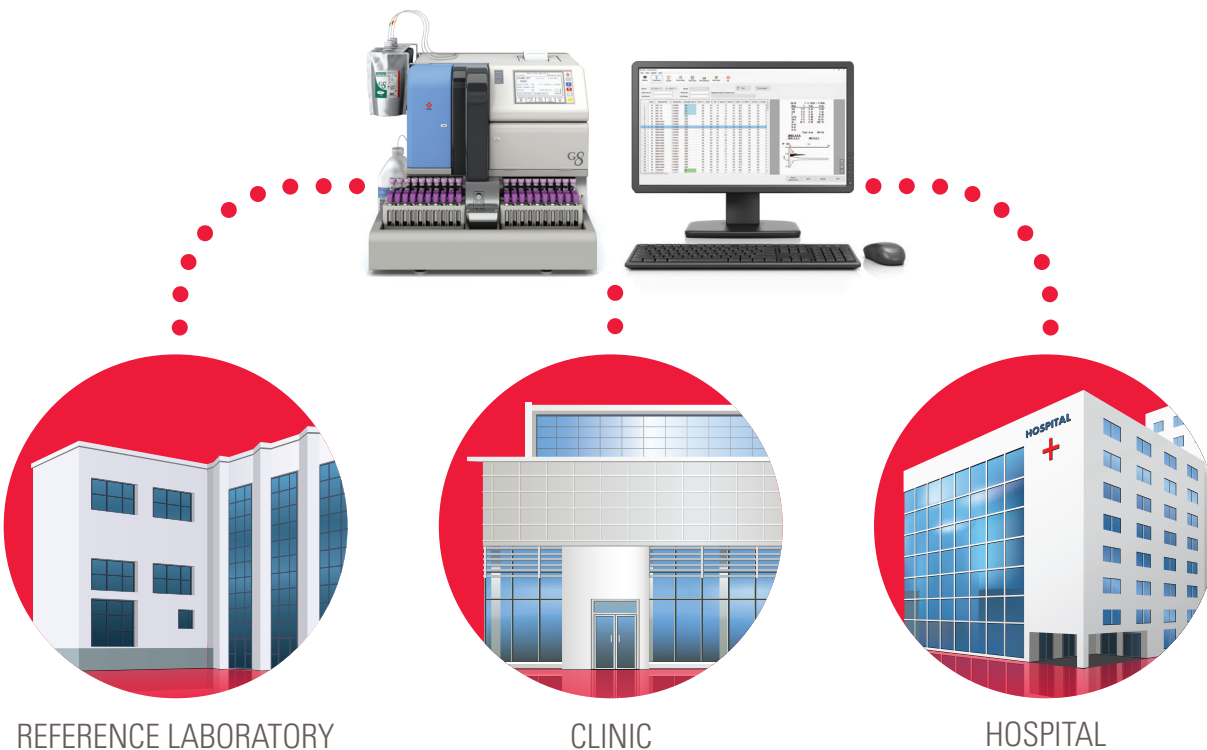
- No manual cap piercing/sample pre-treatment
- Continuous sample loading
- Positive sample identification
- Result validated autoverification
- Minimum hands-on time

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.

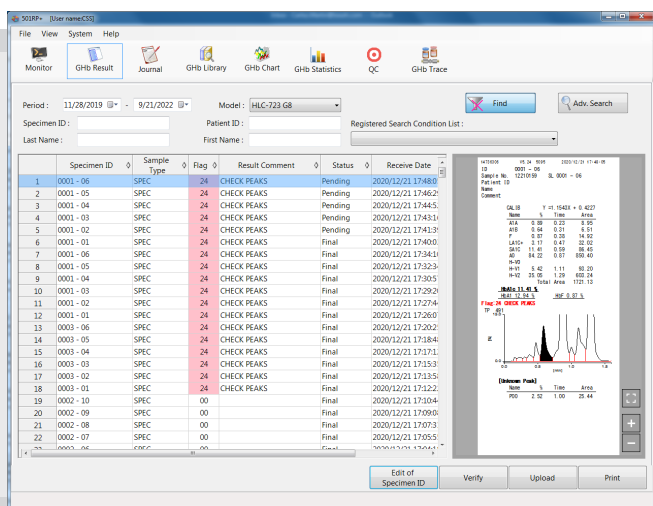
The Tosoh G8 fits seamlessly on third-party track lines for a complete laboratory automation experience.



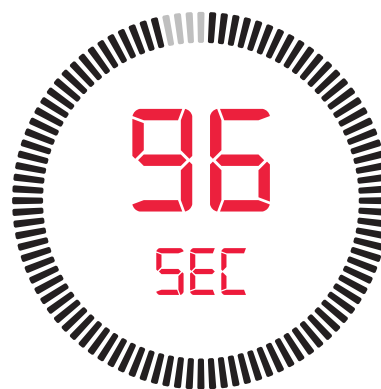
Powerful Middleware

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

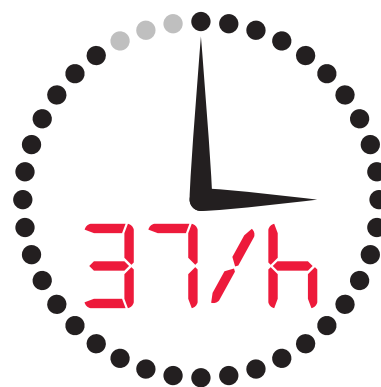
- Paperless chromatography
- Auto verification by filtering results
- Reagent and data traceability
- Centralized QC and Levy-Jennings graphs



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

* GLYCOHEMOGLOBIN REPORT

2020/12/12 12:21

TOSOH CORPORATION V05.24

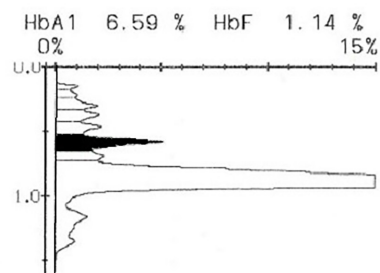
NO: 0041 SL 0005 - 06

ID: AB0066

CAL(N) = 1.1944X + 0.5782

NAME	%	TIME	AREA
FP	0.0	0.15	3.85
A1A	0.4	0.22	5.70
A1B	1.0	0.30	13.73
F	1.1	0.37	15.13
LA1C+	1.2	0.47	16.00
SA1C	5.1	0.58	38.40
A0	93.1	0.88	1218.21
TOTAL AREA 1323.26			

HbA1C 5.1%



P-HV3 1.2 0.70 16.09
HBE SUSPECTED
CHECK PEAKS

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



* GLYCOHEMOGLOBIN REPORT *

2020/12/12 10:30

TOSOH CORPORATION V05.24

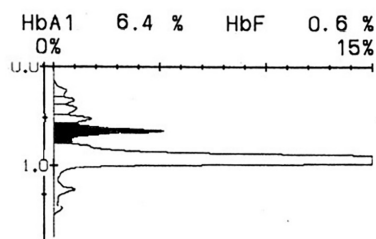
NO: 0003 SL 0001 - 02

ID: 0001 - 02

CAL(N) = 1.1821X + 0.0785

NAME	%	TIME	AREA
FP	0.0	0.00	0.00
A1A	0.5	0.24	8.12
A1B	0.6	0.31	9.13
F	0.6	0.38	9.11
LA1C+	1.3	0.48	19.91
SA1C	5.3	0.59	68.37
A0	92.7	0.88	1448.19
TOTAL AREA 1562.84			

HbA1C 5.3%

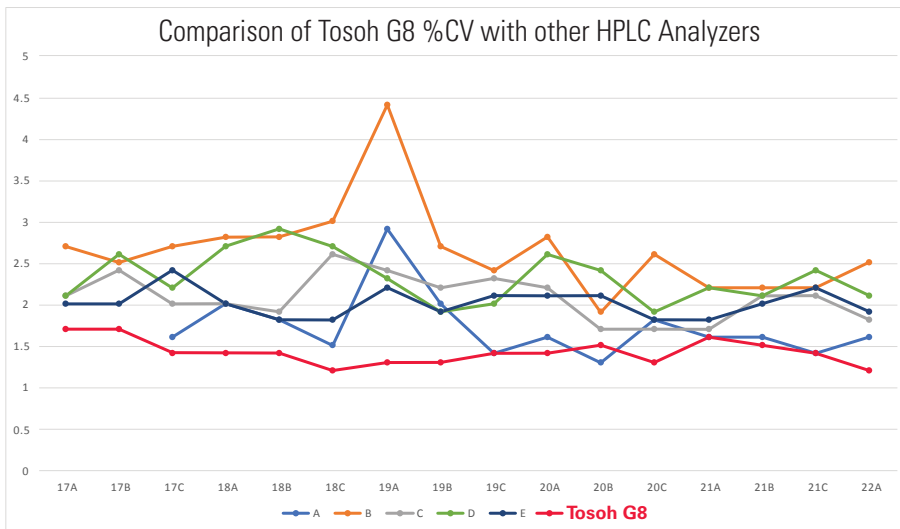


DETAILED CHROMATOGRAPHIC RESULT

- 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%



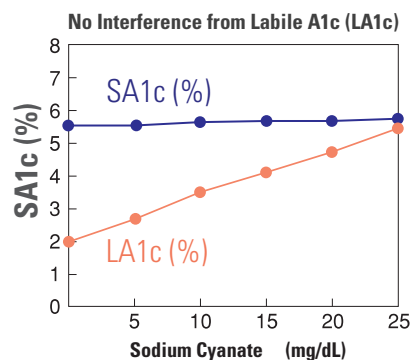
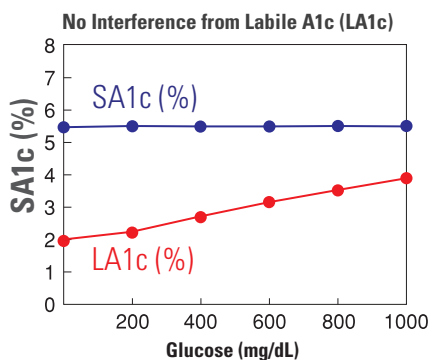
Reference: CAP Survey data: 2017 to 2022

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) <i>Ion-exchange high performance liquid chromatography</i>
Principle	<i>Visible two-wavelength absorption</i>
Sample Requirement	<i>Whole blood or diluted blood (K2/K3 EDTA)</i>
Sampling Volume	<i>Whole blood: 4 µL Diluted blood: 80 µL</i>
Throughput	<i>1.6 minutes per sample</i>
Data storage	<i>On-board memory up to 800 samples</i>

Main Unit

Sampling	<i>Cap-piercing of primary sample tubes</i>
Whole Blood	<i>Automatic dilution by Hemolysis and Wash solution in dilution port</i>
Column oven	<i>Thermomodule in aluminum block</i>
Column connection	<i>Finger-tight type</i>
Detector unit	<i>LED colorimetric detector</i>

Sample Loading Units

Sample loading capacity	<i>G8-90SL: 90 samples and one STAT position</i>
Sample holding	<i>10 samples/rack</i>
Sample vial	<i>12 – 15 mm x 75 – 100 mm primary tubes and Tosoh vials</i>
Barcode specifications	<i>NW-7, CODE39, ITF, CODE128, JAN, COOP 2 of 5, Industrial 2 of 5</i>

System control/Data processing

Display & Input	<i>Liquid crystal display touch panel</i>
Output	<i>Thermal paper (roll paper), USB, LIS or 501RP+</i>
Communication	<i>RS-232C serial standard (bi-directional)</i>
Operating temperature	<i>15 – 30 °C</i>
Power requirement	<i>AC 100 – 240 V, 50/60 Hz, 180 VA</i>

Dimensions/Weight

90SL Model	<i>W 21" (530 mm) x D 20" (515 mm) x H 19" (482 mm) 75 lbs (34.0 kg)</i>
Sysmex Model	<i>W 21" (530 mm) x D 17" (428 mm) x H 19" (482 mm) 75 lbs (34.0 kg)</i>
LA Model	<i>W 21" (530 mm) x D 29" (723 mm) x H 19" (482 mm) 79.4 lbs (36.0 kg)</i>

For more information, call 1.800.248.6764

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

TOSOH BIOSCIENCE

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LBL-00194 [3]

Part Number & Description

0021560	<i>HLC-723G8 (Main Unit)</i>
0021674	<i>G8-LA (Line Automation)</i>
0021561	<i>G8-90SL (90 Sample Loader)</i>
002800	<i>G8-Sysmex</i>
0021955	<i>TSKgel G8 Variant HSi (Column)</i>
0021956	<i>G8 Variant Elution Buffer HSi No. 1</i>
0021957	<i>G8 Variant Elution Buffer HSi No. 2</i>
0021858	<i>G8 Variant Elution Buffer HSi No. 3</i>
018431US	<i>HSi Hemolysis & Wash Solution</i>
0018767	<i>Hemoglobin A1c Calibrator Set</i>
220232	<i>Hemoglobin A1c Control</i>

HbA1c Calibrator Set



HbA1c Control



Analysis Column



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

