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
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
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 %
Historically Consistent CVs
Year after Year of less than 2%

In-house Precision Data

<table>
<thead>
<tr>
<th>Mean HbA1c</th>
<th>%CV (Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5%</td>
<td>0.97</td>
</tr>
<tr>
<td>6.5%</td>
<td>1.04</td>
</tr>
<tr>
<td>8%</td>
<td>1.28</td>
</tr>
<tr>
<td>12%</td>
<td>0.87</td>
</tr>
</tbody>
</table>

Summary of between Lot, Day, Run and Analyzer.

Tosoh HPLC - Your Key to a Reliable A1c Result

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

<table>
<thead>
<tr>
<th>Method</th>
<th>Ability to detect common hemoglobin variants and HbF</th>
<th>Interference from elevated HbF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tosoh Ion-Exchange HPLC</td>
<td>Yes</td>
<td>&gt;25%</td>
</tr>
<tr>
<td>Immunoassay*</td>
<td>No</td>
<td>&gt;10-15%</td>
</tr>
<tr>
<td>Enzymatic*</td>
<td>No</td>
<td>&gt;10-15%</td>
</tr>
<tr>
<td>Boronate Affinity*</td>
<td>No</td>
<td>&gt;15%</td>
</tr>
</tbody>
</table>

* Manufacturers’ package inserts have variable claims for tolerance limits to HbF
**TECHNICAL SPECIFICATIONS**

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

**Principle**
Visible two-wavelength absorption

**Sample Requirement**
Whole blood or diluted blood (K2/K3 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 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
G8-290SL: 290 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**

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions/Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>90SL Model</td>
<td>W 21” (530 mm) x D 20” (515 mm) x H 19” (482 mm) 75 lbs (34.0 kg)</td>
</tr>
<tr>
<td>290SL Model</td>
<td>W 44” (1120 mm) x D 21” (530 mm) x H 19” (482 mm) 114 lbs (51.5 kg)</td>
</tr>
<tr>
<td>LA Model</td>
<td>W 21” (530 mm) x D 29” (723 mm) x H 19” (482 mm) 79.4 lbs (36.0 kg)</td>
</tr>
</tbody>
</table>

**For more information, call 1.800.248.6764**

**PART NUMBER & DESCRIPTION**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>021560</td>
<td>HLC-723G8 (Main Unit)</td>
</tr>
<tr>
<td>021674</td>
<td>G8-LA (Lab Automation)</td>
</tr>
<tr>
<td>021561</td>
<td>G8-90SL (90 Sample Loader)</td>
</tr>
<tr>
<td>021562</td>
<td>G8-290SL (290 Sample Loader)</td>
</tr>
<tr>
<td>021955</td>
<td>TSKgel G8 Variant HSi (Column)</td>
</tr>
<tr>
<td>021956</td>
<td>G8 Variant Elution Buffer HSi No. 1</td>
</tr>
<tr>
<td>021957</td>
<td>G8 Variant Elution Buffer HSi No. 2</td>
</tr>
<tr>
<td>021858</td>
<td>G8 Variant Elution Buffer HSi No. 3</td>
</tr>
<tr>
<td>018431US</td>
<td>HSi Hemolysis &amp; Wash Solution</td>
</tr>
<tr>
<td>018767</td>
<td>Hemoglobin A1c Calibrator Set</td>
</tr>
<tr>
<td>220232</td>
<td>Hemoglobin A1c Control</td>
</tr>
</tbody>
</table>

**HbA1c Calibrator Set**

**HbA1c Control**

**Analysis Column**

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

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