TOSOH

HLC-723®

G11

Automated HbA1c expertise
at the highest level

The **Reliable** Partner



TOSOH BIOSCIENCE

Better Diagnostics For Better Living

THE RELIABLE PARTNER FOR HbA1c AND HAEMOGLOBINOPATHIES TESTING



The G11 is more than just an analyser - it's a reliable partner for laboratories and patients alike. Designed to streamline operations, it reduces costs while maintaining the precision and accuracy that matter most. For mid-to-high volume labs, the G11 delivers a comprehensive **HbA1c and ß-thalassaemia** testing solution, offering **high throughput** without compromising quality, helping clinicians work smarter and faster, and ultimately enhancing patient care.

With its **advanced HPLC separation technology**, the G11 not only excels in HbA1c testing but also plays a critical role in diagnosing and managing haemoglobinopathies, including ß-thalassaemia.

Whether conducting routine HbA1c tests or ß-thalassaemia screenings, the G11 empowers healthcare professionals to make accurate and informed decisions for their patients every time.

For mid-to-high volume labs, the G11 delivers a comprehensive HbA1c and ß-thalassaemia testing solution

PRECISION WITH MINIMAL INPUT

EFFORTLESS USABILITY AND INTUITIVE OPERATION



The G11's intuitive software makes testing **effortless,** ensuring **precision** with minimal input. Optional features like **automated maintenance**, cap piercing, and positive sample identification **reduce manual handling** and improve overall **efficiency**. Customisable error flags and alerts ensure safe and accurate result interpretation, giving you confidence in the results produced.

➔ Minimised Hands-On Time

Maintenance is made **easy** with the G11. Its HPLC column and pre-filter can be replaced **effortlessly**, while programmable start-up and power-off times optimise workflow efficiency.





The two-point calibration system ensures **quick and reliable setup** for all analysis modes, minimising downtime and maximising productivity.

PRODUCTIVITY AT ITS BEST

REDUCED SAMPLE HANDLING

The G11 simplifies sample management by accommodating primary and secondary tubes on the same rack, allowing for greater flexibility. Compatible with multiple anticoagulants, it eliminates the need for mixing whole blood samples thanks to the high dynamic capacity of its HPLC column.

Enhanced Quality Control

The G11 provides confidence in every result with automated HPLC column quality checks for each sample. Its barcode-enabled reagent batch traceability ensures full documentation and accountability. Coupled with advanced chromatogram validation software, the G11 provides seamless quality monitoring for ultimate reliability and maximised productivity.

- G11 **Standard** mode: 30 seconds per sample; **120 samples per hour**
- G11 **Variant** mode: 60 seconds per sample; **60 samples per hour**
- G11 **ß-Thal** mode: 5 minutes per sample; **12 samples per hour**



EFFICIENCY

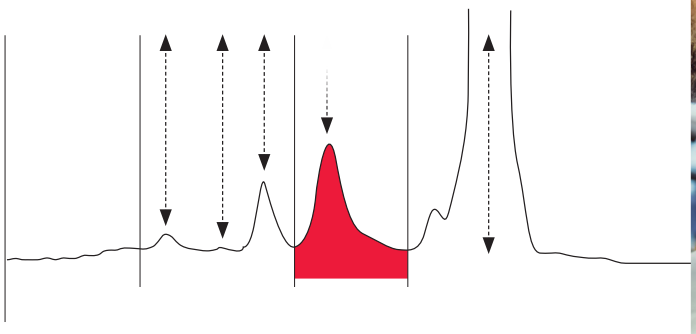
UNMATCHED CHROMATOGRAPHIC POWER

Unrivalled Separation Capacity



Powered by Tosoh's renowned non-porous TSK ion-exchange gel, the G11 offers unrivalled separation capacity. In HbA1c Variant mode, it provides clear differentiation between stable HbA1c and labile HbA1c peaks. It also ensures precise separation of common Hb variants.

In ß-thalassaemia mode, it offers fast, complete separation of Hb variants, and clear and complete separation between HbA2 and HbE. The high dynamic range eliminates the need for sample dilution.





Haemoglobin Variant Library

As a pioneer in diabetes monitoring and haemoglobinopathy diagnosis, Tosoh has created a library of chromatograms to support biologists and technicians by harnessing the experience and expertise of the global scientific community. The Haemoglobin Variant Library represents a significant advancement to continue providing cutting-edge interpretation tools for better diagnostics.

HOW TO CONNECT TO THE LIBRARY?

- Register by following the shared instructions on https://portal.tosoh-diagnostics.com
- Join our community of clinical experts involved in haemoglobinopathy

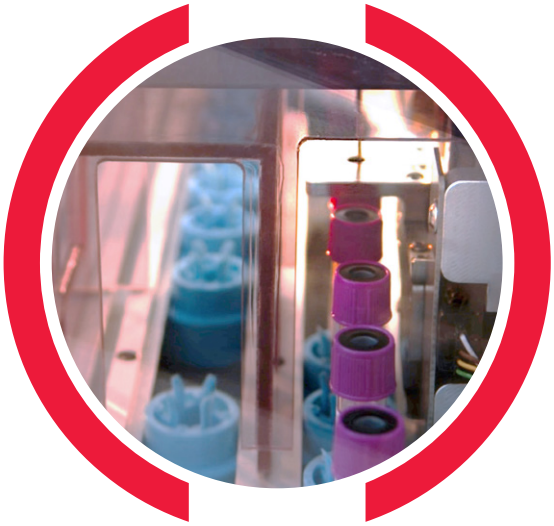
CONNECTIVITY

BUILT FOR DURABILITY AND LONG-TERM EFFICIENCY

The G11 is built to last, offering consistent performance and **minimal downtime.** Its HPLC column resin is known for its mechanical strength and stability, enabling repeated use and extending column life, which contributes to **long-term cost efficiency.**

Scalability and Seamless Connectivity

As your laboratory's needs grow, the G11 grows with you. Its additional rack loaders and seamless integration with Laboratory Automation Systems **ensure scalability**, providing flexibility for expanding operations.



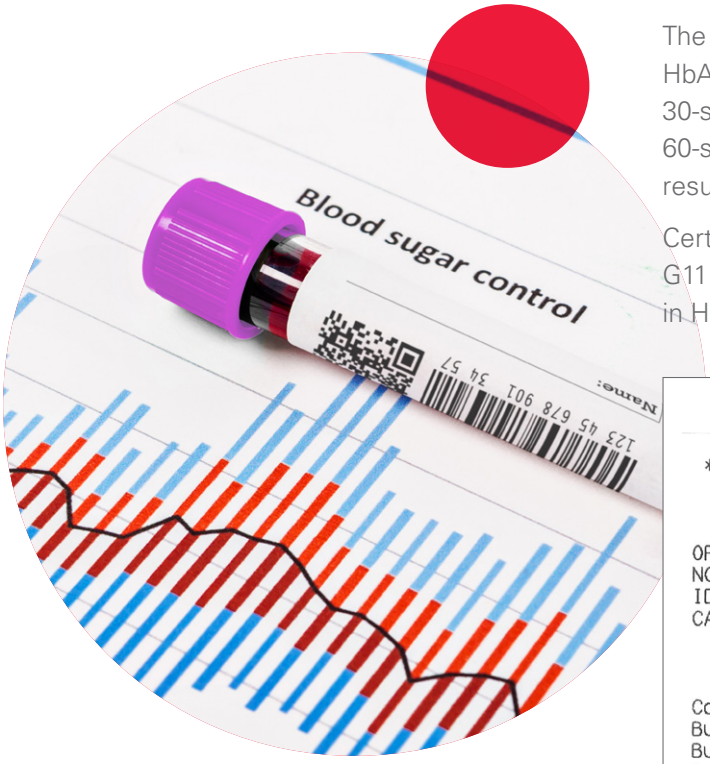


Eco-Friendly Design

The G11 is designed with sustainability in mind. Its low reagent consumption **reduces waste** and disposal costs, making it an environmentally responsible choice for laboratories focused on efficiency and ecological impact.

IMPECCABLE RESULTS

A TRUSTED COMPANION IN HbA1c DETERMINATION

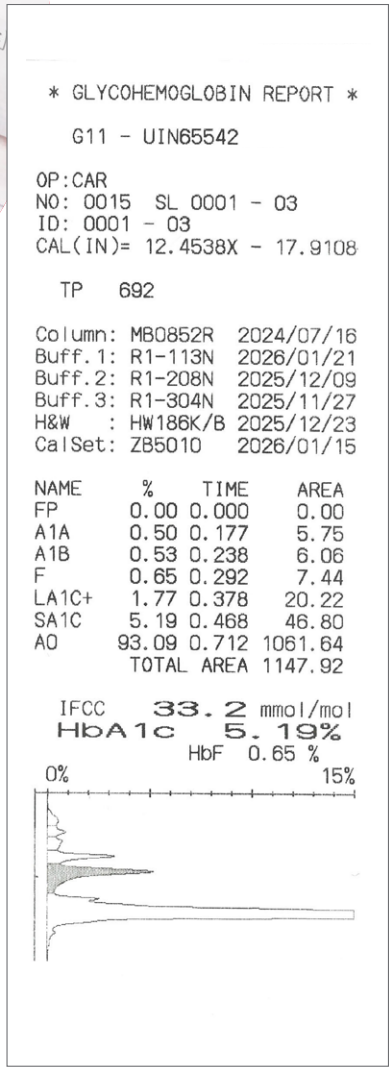


The G11 has been a reliable partner in HbA1c determination. Whether in the 30-second Standard analysis mode or the 60-second extended Variant mode, the results are precise.

Certified by both **NGSP and IFCC**, the G11 guarantees accuracy and consistency in HbA1c testing.

➔ Unrivalled Power in Haemoglobinopathy Testing

In ß-thalassaemia mode, the G11 quantifies HbF and HbA2 in just 5 minutes. It achieves chromatographic separation between HbA2 and HbE, along with other Hb variants, which are clearly separated as distinct peaks. HbA2 testing is standardised on NIBSC, ensuring reliable and accurate diagnostics.



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 * GLYCOHEMOGLOBIN REPORT *

   G11 - UIN65542

OP:CAR
NO: 0015  SL 0001 - 03
ID: 0001 - 03
CAL(IN)= 12.4538X - 17.9108

  TP   692

Column: MB0852R  2024/07/16
Buff.1: R1-113N  2026/01/21
Buff.2: R1-208N  2025/12/09
Buff.3: R1-304N  2025/11/27
H&W   : HW186K/B 2025/12/23
CalSet: ZB5010   2026/01/15

NAME      %     TIME     AREA
FP      0.00 0.000     0.00
A1A     0.50 0.177     5.75
A1B     0.53 0.238     6.06
F       0.65 0.292     7.44
LA1C+   1.77 0.378    20.22
SA1C    5.19 0.468    46.80
A0     93.09 0.712  1061.64
        TOTAL AREA  1147.92

IFCC   33.2 mmol/mol
HbA1c   5.19%
HbF  0.65 %
0%                  15%
```

Variant chromatogram: HbA1c quantification

A FAST, PRECISE AND VERY USER-FRIENDLY INSTRUMENT

THE RELIABLE PARTNER

The Tosoh automated glycohemoglobin analyser HLC-723 G11 Variant analysis mode belongs to Tosoh's family of HPLC analysers. It has been specifically conceived to provide an answer to the ever-increasing number of HbA1c requests and general need to optimise laboratory workflows.

USER-FRIENDLY

Colour touch screen
Power on timer
Automated warming up

COMPLIANCE

Reagent lot traceability
Expiry date traceability
Handheld barcode reader for reagents

QUALITY

High resolution chromatograms
Excellent separation
CV < 2% (NGSP/intra-assay)

CONFIDENCE

Customisable flags
Adjustable flag levels
TP monitoring









CONVENIENCE

HPLC = Gold Standard
Variable tube types
Diverse anti-coagulants

THROUGHPUT

Analysis time 60 sec. (30 sec. in Standard mode for HbA1c testing)
Analysis time 5 min in ß-thalassaemia mode
No rack selection needed

SIMPLICITY

Automated stop
Automated wash
Power off timer

PEACE OF MIND

Column change is done in seconds
Finger tight connections
Superior quality column



CUSTOMER SATISFACTION

UNRIVALLED CUSTOMER SERVICE



Customer Support

Tosoh's dedicated customer service and technical teams are **always ready to support you.** Our skilled engineers are equipped with the latest technologies to provide both remote and on-site assistance, ensuring maximum possible uptime. From order management to technical troubleshooting, Tosoh's support team is with you every step of the way.

Training Academy

Whether you are new to Tosoh or an experienced user, our training academy offers courses on everything from **basic operational skills** to in-depth discussions on **advanced** applications, helping you get the most out of your G11.

Committed to Sustainability

The G11 is built with sustainability in mind. It uses less reagent for each analysis, reducing both biohazardous waste and disposal costs. The eluent bags fully collapse when empty, minimising solid waste, and the outer packaging is 100% recyclable. Tosoh is **committed to environmental stewardship,** ensuring our products align with sustainable practices supporting a greener future.

THE RELIABLE PARTNER

SPECIFICATIONS



Technical specifications

Analytes	*Std & Variant mode: HbA1c (sA1c), HbF / ß-Thal mode: HbF, HbA2*
International standards	*IFCC / NGSP (Std / Variant), WHO Ref (NIBSC 89/666) (ß-Thal)*
Measurement principle	*Ion exchange high performance liquid chromatography*
Calibration	*HbA1c – 2 levels (Std and Variant Mode) / ß-Thal*
Printer	*Thermal printer*
Networking	*RS-232C serial communication port (bi-directional)*
Flagging	*20+ customisable flags*
Analytical resolution	*0.1% / 1mmol/L*
Power / Heat output	*AC 100-240V, 50/60Hz, 200VA max / 280 BTU (@21°C)*
Dimensions (WxDxH) / Weight	*90SL - 530mm x 515mm x 482mm / 37kg*
	290SL - 1120mm x 530mm x 482mm / 54kg

Processing

Sample loading	*90/290 tube samplers & Lab Automation connections*
Sample types	*Whole blood / pre-diluted samples*
Sample dimensions	*12-15mm diameter, 75-100mm collection tubes*
Aspirated sample volume	*3µL (Std/Variant), 5µL (ß-Thal), 150µL (pre-diluted samples)*
Minimum sample volume	*1mL (primary tube), 200µL (sample cup)*
Environmental conditions	*15-30°C, 40-80% R.H., Up to 2000m*
Analytical throughput	*Std mode: 30 seconds / sample*
	Variant mode: 1.0 min / sample
	ß-Thal mode: 5.0 min / sample

Reagents details

Standard mode	*TSKgel® G11*	0023855
	G11 elution buffer No. 1 (S)	0023856
	G11 elution buffer No. 2 (S)	0023857
	G11 elution buffer No. 3 (S)	0023858
Variant mode	*TSKgel® G11 Variant*	0023478
	G11 Variant elution buffer No. 1 (S)	0023479
	G11 Variant elution buffer No. 2 (S)	0023480
	G11 Variant elution buffer No. 3 (S)	0023481
ß-Thalassemia mode	*TSKgel® G11 ß-Thalassemia*	0023504
	G11 ß-Thalassemia elution buffer No. 1 (S)	0023505
	G11 ß-Thalassemia elution buffer No. 2 (S)	0023506
	G11 ß-Thalassemia elution buffer No. 3 (S)	0023507
	G11 F&A2 calibrator set 2	0023550
	G11 F&A2 control set	0997050
Common reagents	*HSi Hemolysis and wash solution (5x 2L)*	018431L
	HSi Hemolysis and wash solution (2x 4L)	019550L
	HbA1c calibrator set (S)	0023502
	HbA1c diluting solution	0023503
	Hemoglobin A1c control cet	0021974

TOSOH

G11

PROVEN JAPANESE QUALITY

CHOOSE A RELIABLE PARTNER



When you choose the G11, you are selecting proven quality, efficiency, and reliability in HbA1c and ß-thalassaemia analysis.

Backed by Tosoh's commitment to sustainability and exceptional customer support, the G11 is your reliable partner, designed to meet the demands of modern laboratories while enhancing patient care.

Experience the G11 in action and elevate your laboratory's capabilities.



sales-marketing.tsen@tosoh.com
www.tosohbioscience.com/EU-EN-diagnostics

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