



GR01 HPLC A1c Analyzer

Next Level **A1c Testing**



Our Legacy

With over 40 years of experience as a world-renowned innovator in Gold Standard HPLC technology for A1c testing, Tosoh Bioscience leverages its legacy of expertise to introduce the next-generation GR01 analyzer.

Our Commitment to Excellence

- **Simplified workflow** from sample to result
- **Rapid testing** with detection of common hemoglobin variants
- **Excellent precision** and accuracy you can depend on
- **New color touchscreen** for an enhanced, user-centric experience

Trust Tosoh

Trust in Tosoh's ability to deliver an informed diagnosis of your patient with the complete hemoglobin picture.

TOSOH BIOSCIENCE

Next-Generation Tosoh A1c Analyzer – GR01

Fast HPLC Results in **Just 50 Seconds** with Variant Detection

Built to set a new benchmark in HPLC technology, the next-generation Tosoh GR01 analyzer seamlessly blends intuitive operation with demonstrated reliability. Engineered for performance and designed for value, it delivers outstanding accuracy and speed.

Space Saving

- Compact, space-saving design
- Small footprint ideal for labs of all sizes.

Time Saving

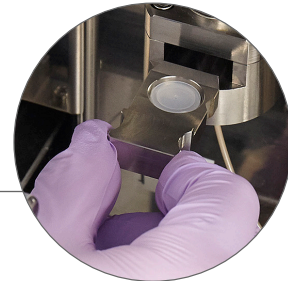
- Fast HPLC Results with Variant Detection
- Optional on-the-fly buffer changing capability while analyzer is running



Labor Saving

Onboard Quality Control

Built-in QC charting and Levy-Jennings trending - no manual tracking or external middleware needed



User-Friendly Components

Easy-to-replace column and filter

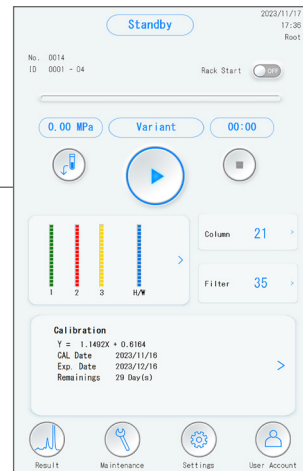


Hands-Free Tube Alignment

Automated barcode orientation and scanning

Intuitive User Interface

Simplified navigation and access to digital chromatograms



Sophisticated result flagging for ease of auto verification

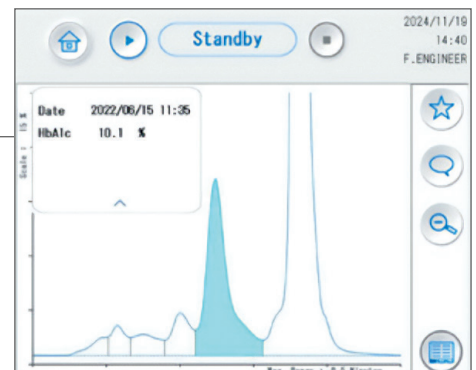


Enhanced User Experience with Large Touchscreen

Adjustable LCD for clear visualization and easy operation

Gold Standard HPLC technology

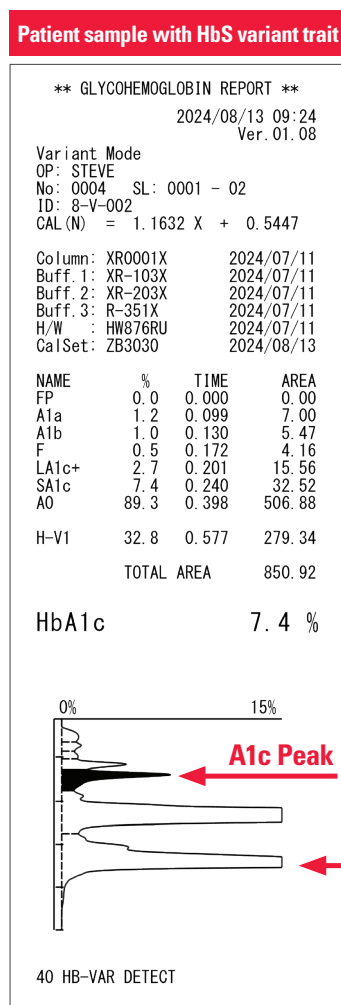
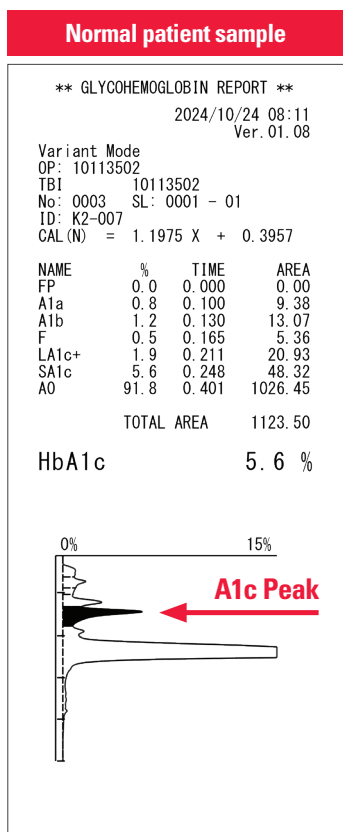
Superior chromatography with Tosoh's patented column



Get the Complete Picture with Tosoh HPLC

- Clear separation between labile A1c (LA1C or LA1c) and stable A1c (SA1C or sA1c)
- HbAE, HbAD, HbAS, HbAC and HbF separated from A0 peak
- Accurate and reportable %HbA1c results in the presence of HbAC (38.8%), HbAD (42.7%), HbAE (31.4%), HbAS (42.7%)
- No clinically significant interference with HbA1c results in the presence of HbF up to 32.2%

Example Chromatograms



Excellent Precision with CV's ~1.1% (NGSP Units)

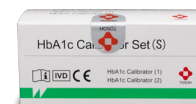
%HbA1c Target [Actual Mean]	*Coefficient of Variation
5.0% [4.91%]	1.03%
6.5% [6.88%]	1.07%
8.0% [8.24%]	1.01%
12.0% [11.79%]	0.95%

*Summary of Between -lot, -day, -run, -instrument (whole blood)

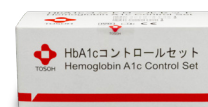
GR01 Specifications

METHOD	
Analyte	HbA1c (% , mmol/mol)
Applicable samples	Human venous whole blood and hemolysates
Assay principle	Ion exchange high-performance liquid chromatography
Calibration	2-point calibration by calibrators
Detection method	2-wavelength absorbance (Detection wavelength: 415 nm / 500 nm)
Anti-coagulants	K2-EDTA and K3-EDTA
CAPACITY AND SAMPLING	
Processing throughput	50 seconds / sample
Hourly throughput	72 samples/hour
Sampling volume	3 μ L for whole blood samples, 150 μ L for diluted samples
Sample rack	10 sample tubes or cups per rack
Sample loading capacity	90 samples
Sample dilution	Automatic dilution with Hemolysis & Wash solution in the dilution port
Sample container	Sample tubes (12 to 15 mm in diameter \times 75 mm or 100 mm in length) Dedicated sample cup (with adapter)
Applicable sample rack	SYSTEMEX rack (with plastic bottom)
Sample Barcode Specification	NW-7 (Codabar), CODE39, ITF, CODE128, JAN (UPC/EAN), Industrial 2 of 5, COOP 2 of 5 (CODE39 - available only with the optional laser barcode reader)
SOFTWARE	
Display	10.1-inch color LCD
Input	Capacitive touch panel
Storable number of samples	Internal memory: Max. 150,000 samples USB memory stick (optional): PDF report
Printer	Internal printer: Thermal printer (paper width: 58 mm) External printer: Monochrome laser printer (optional)
External output	Serial communication (RS-232C)
Temperature control (column)	Approx. 25°C
Power Consumption	250 VA
Power Supply	AC100 to 240 V, 50 / 60 Hz
Data processing unit	OS: Windows 10 IoT Enterprise LTSC
DIMENSIONS AND WEIGHT	
Dimensions	~21 (W) \times ~20 (D) \times ~24 (H) inches (excluding protrusions) Main unit: Approx. 75 lbs
Weight	90 Sample loader: Approx. 20 lbs

HbA1c Calibrator Set S



HbA1c Control



GR01 HbA1c Buffers



Hemolysis & Wash Solutions



Analysis Column



Part Number & Description

Part No. Product Name

0024750	Analyzer HLC 723GR01
0024752	90 sample loader GR 90SL
0024759	TSKgel GR01 HbA1c Column
0024760	GR01 HbA1c Elution Buffer No. 1
0024761	GR01 HbA1c Elution Buffer No. 2
0024762	GR01 HbA1c Elution Buffer No. 3
018431US	HSi Hemolysis & Wash Solution (2000 mL)
0023502	HbA1c Calibrator Set (S)
0023503	HbA1c Diluting Solution
0021974	Hemoglobin A1c Control Set



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