

# MDK-310

## Hemoglobin Analyzer

### Specification

Methodology	High-performance Liquid Ion-exchange Chromatography(HPLC)
Sample Type	Venous Blood, Finger Peripheral Blood, or Hemolyse blood
Sample Volume	5µl Whole blood, or Lyse blood (Ratio 5µl: 1000 µl)
Sample Rack	10 Positions, Available for Primary Tube and Sample Cups
Test Mode & Speed	Fast Mode: 90 Secs/Test Variant Mode: 145 Secs/TestB β-Thalassemia(A2/F)Mode: 300 Secs/Test
Measurement Range	HbA1c:3-25%, HbF:0.3-45%, HbA2:0-15%
Precision	CV≤1.5%
Parameter	NGSP, IFCC Result HbA1a,A1b, HbF,LA1c,Alc(stable Alc), A0, HbA2, Hb Variants(S, C, D, E, J...)
Photometer	415nm LED, 20000 Hours Life Span
Column Capacity	4000 Tests, Up to 10,000 Tests
Pre-sieve	300~400 Tests
Information Input	Built-in Bar-code Scanner or Touch Keyboard
Display	10.4'TFT colorful LCD Touch Screen
Storage	50,000 Test Results or 7,500 Results with Curves
Printer	Thermal Printer or External Printer
Data Transfer	USB port, Support LIS/HIS, Independent PC software
Work Condition	Temperature 5~38°C, Humidity 30%~75%
Power supply	110V-220V, 50-60Hz
Dimension	310mmx470mmx500mm
Weight	20KG



*High Efficiency for HbA1c/Thalassaemia*

**MDK**



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### Gold Standard in Diabetes Diagnose

Glycosylated hemoglobin(HbA1c) is widely recognized as a Golden Standard to monitor diabetes, which can indicate the average plasma glucose concentration cover 2-3months.

### Hb Variants Detection of Thalassemia

Hb Variants can be detected with same column & buffer kit for HbA1c mode or HbA2/F mode, it helps to get more accurate HbA1c results without variants interference, and also helps patients to understand their gene default to save high cost for gene test.



### User Friendly

- Automated Piercing for EDTA tube
- First sample result within 3 mins
- Built-in Bar-code Scanner for Sample Identification
- Sample Rack Available for Tube & Sample Cup Simultaneously

### Optimized Column

- Test modes switching Freely with same column
- Available tests  $\geq 4000$  tests, Up to 10,000 tests
- Long life span, free activation process
- Pre-column sieve(300~400 tests) for double protection

### Free Maintenance

- Online Alarm message for buffer insufficient
- High Stability HP pump more than 8 Years Life-span
- High Accuracy Dispatch Valve more than 100,000 Tests.

### High Accuracy

- HbA1c Inter Measuring CV<1.5% to Enable Exceptional Result Management
- Accurate hemoglobin A2 and F determination
- Free-maintenance for Calibration
- Quality Control management simplifies quality assurance compliance

### Flexible Software

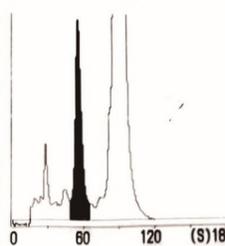
- Customized Laboratory Report
- USB port for Software Upgrade & Data Transfer
- PC software with Curve for official Report



### Highly Accurate Measurement

\*\*\* MDK-310 1.0.0.5 \*\*\*  
 Date: 2025/03/26 21:01  
 NO: 00548 ID: 0904  
 Method: HPLC Type: Whole  
 Mode: A1c-R Patient ID: 8.1

HbA1c 8.0% NGSP  
 (4.0% - 6.0%) IFCC  
 63.9 mmol/mol

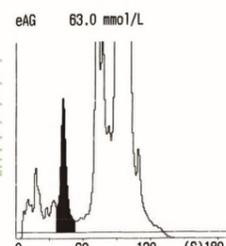


NAME	TIME	AREA	%
A1a	024	0007.2	00.8
A1b	028	0015.3	01.7
F	045	0000.5	00.1
LA1c	045	0007.6	00.9
A1c	055	0051.4	08.0
A0	092	0800.4	90.7

HbA1c Fast mode

\*\*\* MDK-310 1.0.0.5 \*\*\*  
 Date: 2025/04/07 10:57  
 NO: 09622 ID: 0502  
 Method: HPLC Type: Whole  
 Mode: A1c Patient ID: 172

HbA1c 5.6% NGSP  
 (4.0% - 6.0%) IFCC  
 37.7 mmol/mol

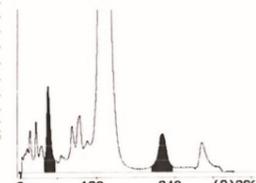


NAME	TIME	AREA	%
A1a	020	0009.2	00.8
A1b	027	0020.3	01.7
F	043	0009.1	00.8
LA1c	046	0000.0	00.0
A1c	051	0037.9	05.6
A0	103	1095.6	93.5

HbA1c Standard mode

\*\*\* MDK-310 1.0.0.5 \*\*\*  
 Date: 2025/05/08 15:55  
 NO: 01414 ID: 0801  
 Method: HPLC Type: Whole  
 Mode: A2/F Patient ID: 172

HbA1c 5.3% NGSP  
 (4.0% - 6.0%) IFCC  
 34.4 mmol/mol

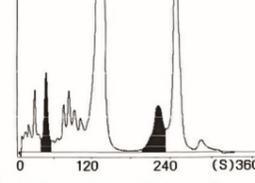


NAME	TIME	AREA	%
A1a	024	0009.1	01.0
A1b	028	0009.7	01.0
F	037	0010.0	01.0
LA1c	045	0009.4	01.0
A1c	056	0031.0	05.3
P3	092	0020.8	02.2
A0	145	0744.8	78.0
A2	232	0022.0	02.8
D-Window	292	0022.3	02.3

HbA2/F mode for Thalassemia

\*\*\* MDK-310 1.0.0.5 \*\*\*  
 Date: 2025/05/07 19:21  
 NO: 01385 ID: 1401  
 Method: HPLC Type: Whole  
 Mode: A2/F Patient ID: 1006

HbA1c 6.7% NGSP  
 (4.0% - 6.0%) IFCC  
 49.7 mmol/mol



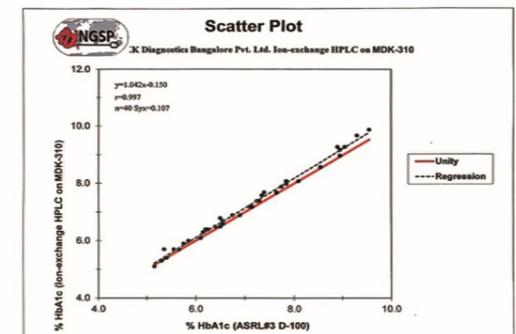
NAME	TIME	AREA	%
A1a	022	0007.8	01.0
A1b	027	0008.3	01.1
F	037	0015.8	02.0
LA1c	045	0004.2	00.5
A1c	055	0029.3	08.7
P3	092	0020.8	02.6
A0	144	0465.8	59.0
A2	232	0039.7	03.3
E-Window	261	0126.8	16.1

### Performance Data

Sample No.	Measured Value	Sample No.	Measured Value
1	6.5	11	6.5
2	6.5	12	6.4
3	6.4	13	6.6
4	6.4	14	6.5
5	6.5	15	6.5
6	6.6	16	6.5
7	6.6	17	6.5
8	6.5	18	6.6
9	6.5	19	6.5
10	6.7	20	6.5

AVG(average)% 6.5  
 CV(coefficient of variation) 1.12%

Precision Study



Correlation between MDK-310 and a Famous HPLC