LifeDX HBPro VT

HbA1c with variant & β Thalassemia Mode

LifeDX HBPro VT

The fully automated LifeDX HBPro VT offers the fastest available throughput of HbA1c results in just 96 seconds, with Hb variant detection, providing the outstanding solution for quick and reliable diabetic monitoring.

Patients with hemoglobin variants can be in depth analyzed by simple mode change to β - Thalassemia program.
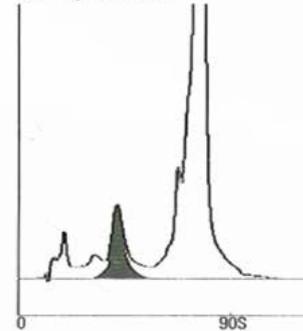
HbA1c Variant Mode

Time Span: 96 seconds/ Test

Reportable Parameters: HbA1a, HbA1b, HbF, LA1c, HbA1c, HbA0, V-Window

Peak Name	Time(s)	Absorbance	Area	Area(%)
HbA1a	15.0	0.0029	0.191	1.1
HbA1b	21.0	0.0023	0.202	1.2
HbF	31.0	0.0023	0.210	1.2
LA1c	44.0	0.0019	0.172	1.0
HbA1c	52.0	0.0066	0.860	6.2
HbA0	81.0	0.2606	12.239	72.4
V_Window	89.0	0.1019	3.025	18.0

HbA1c(IFCC)=45.4mmol/mol   HbA1c(NGSP)=6.2%

eAG(ADA)=134.2mg/dl   eAG(ADA)=7.4mmol/l

HbA1c

Time: 15:44:49
Date: 2021-05-07
Type: Whole Blood
Rack No.: 0010
Rack Position: 01
Sample ID: 2105070078
Running No.: 0078

Peak	Time	ABS	Area	Area%
HbA1a	11	0.0014	0.039	0.4
HbA1b	16	0.0033	0.073	0.8
HbF	20	0.0009	0.051	0.5
LA1c	25	0.0055	0.070	0.7
HbA1c	37	0.0051	0.518	5.4
HbA0	65	0.3313	8.111	92.2
V_Win	0	0.0000	0.000	0.0

Total Area: 8.862

HbA1c	5.4%	-	NGSP
HbA1c	35.5mmol/mol		IFCC
eAG	5.9mmol/l		ADA
eAG	107.9mg/dl		ADA

ß- Thalassemia Mode

Time Span: 380 seconds/ Test

Reportable Parameters: HbA1a, HbA1b, HbF, LA1c, HbA1c, HbA0, V-Window, HbA2, HbE/HbD/ HbS/HbC
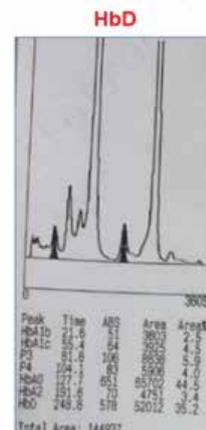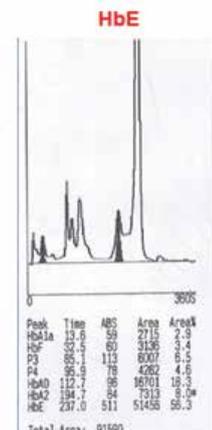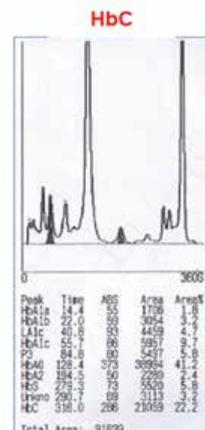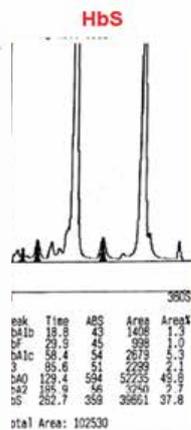

HbA1c(IFCC)=33.3mmol/Mol   HbA1c(NGSP)=5.2%

eAG(ADA)=102.2mg/dL   eAG(ADA)=5.6mMol/L

HbS   HbC   HbE   HbD
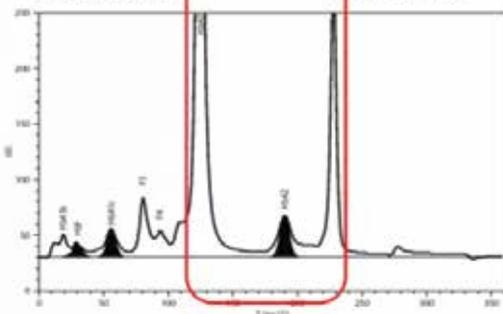
LifeDX HBPro VT Hemoglobin Analyzer (HPLC)

- **HPLC Technology – Gold Standard Methodology**
  - Anchored to the Diabetes Control and Complication Trial (DCCT) Reference Study
  - NGSP and IFCC Certified

- **Fast - To Ensure Your Workload is Processed Promptly**
  - HbA1c Results in 96 seconds.
  - β - Thalassemia mode in 380 seconds.

- **Fully Automated - To Minimize Operation Hassles**
  - Automated Piercing
  - Fully Automated Start - up, Maintenance and Shutdown
  - Internal Auto Barcode Scanner for Sample Identification

- **Precise and Reliable – To Serve You Consistently**
  - HbA1c Inter & Intra Measuring CV's ≤1% to Enable Exceptional Result Management
  - Superior Quality Chromatographic Resolution to Minimize Interferences

- **User Friendly - To Avoid Operator Error**
  - 8" TFT Touch Screen LCD with Vivid Color
  - Easy to Understand and Pellucid Software
  - Only One Type of Sample Rack Required for All Different Tubes

- **Flexible - To Satisfy Diverse Laboratory's Needs**
  - Different Sample Tubes Can Be Loaded in Any Order in Any Rack
  - A 110 Sample Loader Available for Laboratory Automation
  - Highly Customizable Remarks to Meet Your Needs
  - External Laser Printer for Direct Patient Result

- **Complex System Functions - For Easy Integration**
  - USB and RS232 Ports Offer Flexible Connectivity for LIS / HIS Systems
  - STAT Position for Emergency Assay

- **Compact Size - To Minimize Space Requirements**
  - Small Footprint Reduces Bench Space Needed

Gold Standard of Diabetes Diagnose

➤ Glycosylated hemoglobin (HbA1c) is widely recognized as a Gold Standard to monitor diabetes, which can indicate the average plasma glucose concentration over 8 ~ 12 weeks.

➤ LifeDX HbPro- VT adopts linear gradient chromatographic elution method, with patented result algorithm, to provide accurate result for clinical diagnosis and treatment

HPLC Methodology

➤ High Performance Liquid Chromatography (HPLC) separates HbA1c directly by measuring the absorbance points continually to form a chromatogram. Use of normal distribution curve fitting auto-iterative algorithm helps to get precise HbA1c testing results, excluding interference of variant and unstable hemoglobin like HbF. Standard Analysis mode will report HbA1a, HbA1b, HbF, HbA1c, HbA0 peak areas and ratio. The result also includes IFCC, NGSP and eAG value for diverse client needs.

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Specifications

Methodology	High - Performance Liquid Chromatography (HPLC)
Test Modes	Variant Mode, β - Thalassemia Mode
Test Range	3% - 18%
Precision	CV ≤ 1.5%
First Sample Result	2.4 Mins
Test Speed	Variant Mode: 96 secs / T , β - thalassemia Mode : 380 secs / T
Sample Type	Venous Blood, Finger Peripheral Blood, Lyophilized Whole Blood
Sample Volume	10 ul (1500 Dilution Rate)
Auto Sample Station	110 Positions + 1 Stat Position
Photometer	415nm + 500nm LED, 20000 Hours Life Span
Chromatography Column	Availabile Tests ≥ 3000T (HbA1c)
Filter	≥ 400T
Display	8 " TFT True Color LCD Touch Screen
Software	Embedded System with Self - Diagnosis to Monitor and Detect System Errors
Reagent Kit	Eluent A, Eluent B, Eluent C, Hemolysin, Calibrator, QC Material
Information Input	Scanner or Touch Keypad
Storage	4000 Sample Results
Connection	Rs232, USB, LIS Compatible
Printer	Thermal Printer and External Laser Printer
Operation Temperature	10 ~ 30°C (50 ~ 86°F)
Humidity	10 ~ 70%
Power	AC 100 - 240V 50/60HZ 150VA
Dimensions	580mm× 500mm× 520mm (22.8"H× 19.7"W× 20.5"D)
Weight	50kg (110lbs)
Barcode Scanner	Internal Automated Scan