

Calibration Certificate of LifeDX HBPro
HPLC based Fully Automated HbA1c Analyser

Customer Name	Medray Clinics Pvt Ltd
Customer Address	Indiranagar, Bangalore, Karnataka
Analyser Model	LifeDX HBPro
Serial No.	I02F00000861
Next Calibration Due on	July 21 st , 2024

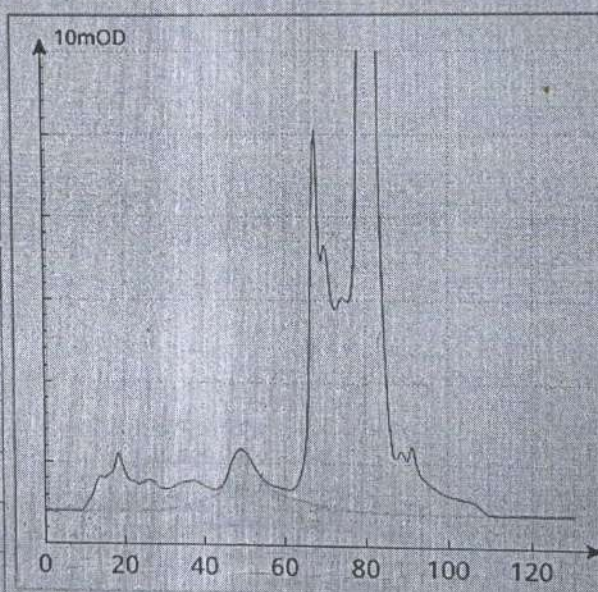
This is to certify that LifeDX HBPro HPLC based Fully Automated HbA1c instrument bearing Sr. No. I02F00000861 has been validated from July 18th to July 22nd, 2024 and calibration of the instrument and all other values have been found within the limit.

Interpretation: LifeDX HBPro Calibration done successfully.

Prepared, Reviewed and approved by	
Name :	Ganagadhar
Title:	Service Engineer
Date :	23-07-2023

Result Details			
Number:	6787	Date:	2023-11-11
Column C:	815	Time:	17:36:08
Column T:	36.9°C	ID:	C1
Position:	1#	Type:	Diluted blood

Peak	Time	ABS	Area	Result
HbA1a	13.5	21	632	0.7
HbA1b	17.9	36	1731	1.9
HbF	25.5	20	1056	1.2
LA1c+	37.1	19	1892	2.1
HbA1c	48.5	39	4974	5.5
HbA0	79.7	1814	79618	88.6
V_Win	-	-	-	-
eAG(ADA)	6.2 mmol/L		112.1 mg/dl	



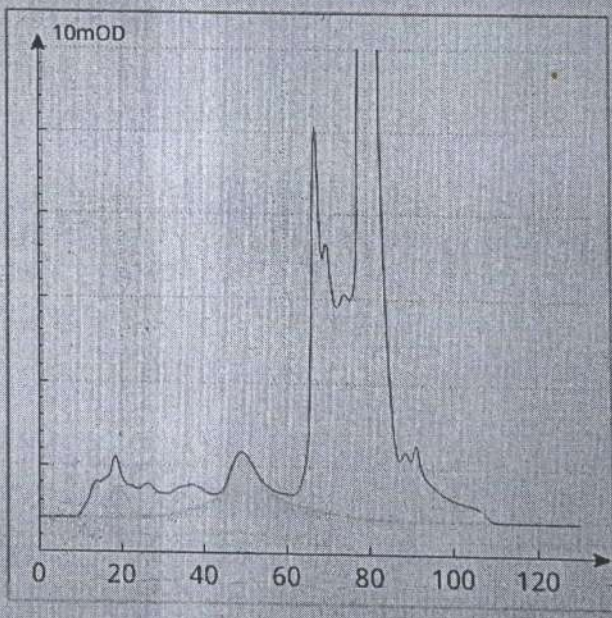
NGSP:	5.5
IFCC:	37.0mmol/mol
Area:	89902.2
Remark:	
Pressure:	6.2MPa

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Result Details			
Number:	6788	Date:	2023-11-11
Column, C:	816	Time:	17:38:19
Column, T:	37.0°C	ID:	C1
Position:	1#	Type:	Diluted blood

Peak	Time	ABS	Area	Result
bA1a	13.4	21	618	0.7
bA1b	17.9	36	2091	2.3
bA1c	25.5	20	1062	1.2
bA1c+	36.8	19	1984	2.2
bA1c	48.5	39	4964	5.5
bA0	79.7	1811	79498	88.1
Win				
(ADA)	6.2 mmol/L		111.2 mg/dl	



NGSP:	5.5
IFCC:	36.6mmol/mol
Area:	90215.8
Remark:	
Pressure:	6.2MPa

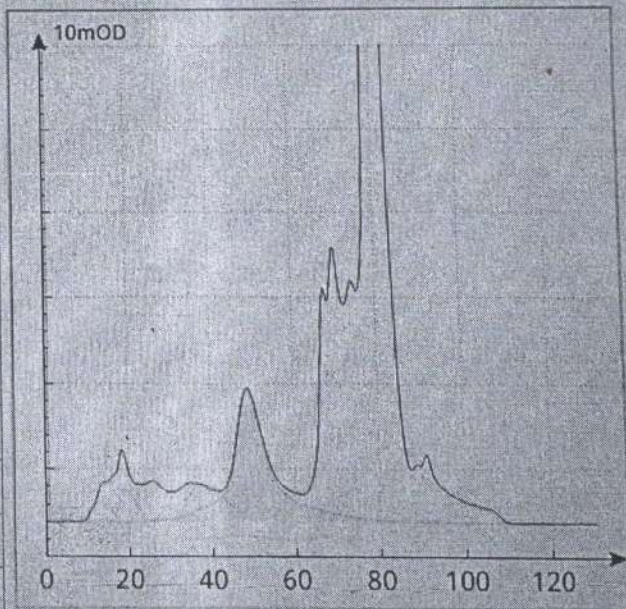
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Result Details

Number:	6789	Date:	2023-11-11
Column C:	817	Time:	17:40:29
Column T:	37.0°C	ID:	C2
Position:	2#	Type:	Diluted blood

Peak	Time	ABS	Area	Result
bA1a	13.5	23	572	0.6
bA1b	17.9	42	1895	2.1
HbF	25.1	23	1381	1.5
A1c+	34.7	22	2131	2.4
bA1c	48.3	77	8596	9.5
bA0	79.7	1745	75605	83.8
Win	-	-	-	-
S(ADA)	12.6 mmol/L		226.9 mg/dl	

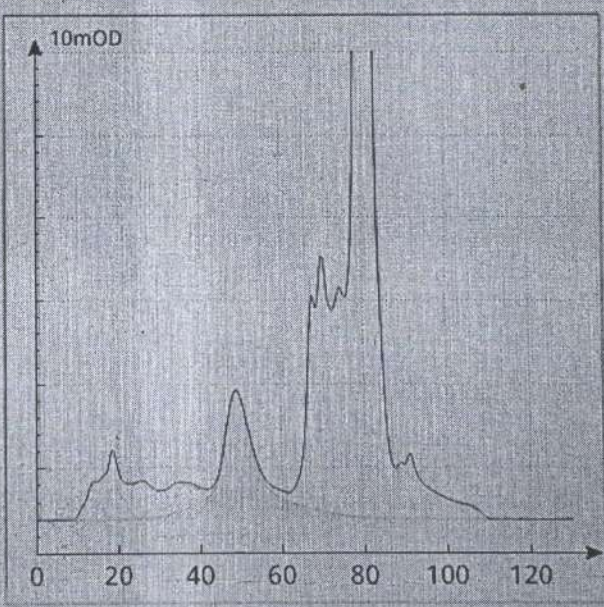


NGSP:	9.5
IFCC:	80.7mmol/m
Area:	90180.5
Remark:	-
Pressure:	6.2MPa

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Result Details			
Number:	6790	Date:	2023-11-11
Column. C:	818	Time:	17:42:39
Column. T:	37.0°C	ID:	C2
Position:	2#	Type:	Diluted blood

Peak	Time	ABS	Area	Result
HbA1a	14.1	22	699	0.8
HbA1b	17.9	41	1659	1.9
HbF	25.1	23	1353	1.5
A1c+	35.6	22	1233	1.4
HbA1c	48.3	76	8490	9.6
HbA0	79.7	1715	75417	84.9
Win	-	-	-	-
G(ADA)	12.6 mmol/L		227.5 mg/dl	



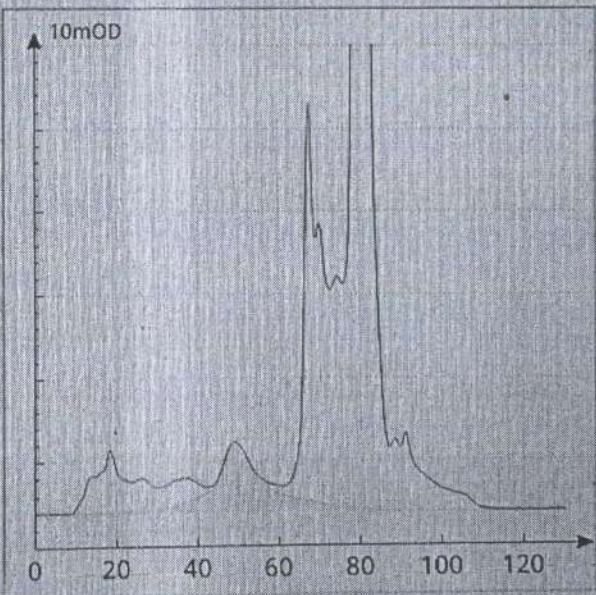
NGSP:	9.6
IFCC:	80.9mmol/m
Area:	88851.1
Remark:	-
Pressure:	6.3MPa

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Result Details			
Number:	6791	Date:	2023-11-11
Column. C:	819	Time:	17:44:49
Column. T:	37.0°C	ID:	QC1
Position:	3#	Type:	Diluted blood

Peak	Time	ABS	Area	Result
HbA1a	13.5	22	685	0.7
HbA1b	17.8	38	1806	1.9
HbF	25.6	21	1207	1.3
LA1c+	37.1	21	919	1.0
HbA1c	48.5	42	5312	5.6
HbA0	79.6	1883	86273	89.7



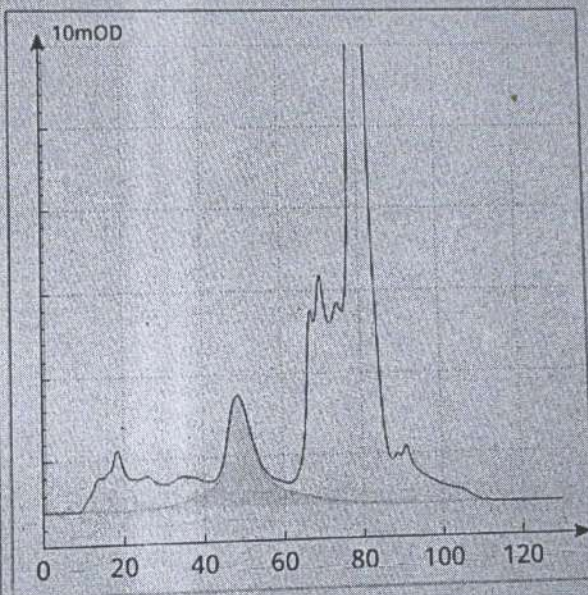
NGSP:	5.6
IFCC:	37.8mmol/m
Area:	96201.4
Remark:	-
Pressure:	6.3MPa

V_Win	-	-	-	-
AG(ADA)	6.3 mmol/L	114.2 mg/dl		

Result Details

Number:	6792	Date:	2023-11-11
Column C:	820	Time:	17:46:59
Column T:	37.0°C	ID:	QC2
Position:	4#	Type:	Diluted blood

Peak	Time	ABS	Area	Result
IbA1a	13.3	20	476	0.7
IbA1b	17.9	36	1481	2.1
HbF	24.9	20	1121	1.6
A1c+	34.4	19	909	1.3
IbA1c	48.2	67	7514	10.4
IbA0	79.6	1544	67142	85.4
Win	-	-	-	-
G(ADA)	14.0 mmol/L	252.2 mg/dl		



NGSP:	10.4
IFCC:	90.3mmol/mol
Area:	78643.2
Remark:	-
Pressure:	6.3MPa

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HbA1c-Calibrator

Packing Insert

【Intend Use】

HbA1c Calibrator is intended for the percent determination of HbA1c in human blood using High Performance Liquid Chromatography (HPLC).

【Principle】

Form correspondence between the concentration of HbA1c and the variation of peak area ratio by testing calibrator level 1 and level 2. Establish standard curve to measure the concentration of HbA1c in sample.

【Application】

It's only for use with Lifotronic GH and H series HbA1c system.

【Composition】

1. Calibrator includes hemoglobin from lyophilized whole blood, preservatives and stabilizers.
2. It's traceable to NGSP Ion Exchange Chromatography method.

【Packaging Specification】

The kit includes calibrator level 1, level 2
2×0.1mL

【Expiry Date】

1. Store at 2-8°C, keep in dark place. The calibrator is provided in lyophilized form for increased stability
2. Expiry Date, shelf life is 12 months. After resolved, it will be stable for 7 days at -20°C

【Operation Step】

1. Open vial, and place at room temperature for 10-15 minutes.
2. Add 100μL deionized water with pipette to dissolve level 1 and level 2, then stand for 30 minutes.
3. Tighten the vial covers and shake them gently and thoroughly.
4. Then choose suitable centrifuge tubes to dispatch, label and use.

【Limitation of the Procedure】

Refer to the operation guide to use the calibrator. If not, the measured results are not reliable.

【Performance Standard】

1. Appearance: Visual inspection: be red loose dried frozen aquatic products, be red liquid after redissolving.
2. Packing volume of level 1, level 2: $\geq 2.7g$.
3. Accuracy of level 1, level 2: Bias% should be in the range of $\pm 10\%$.
4. Intra-assay precision of level 1, level 2: $CV \leq 5\%$.
5. Inter-assay precision of level 1, level 2: $CV \leq 10\%$.
6. Bio-safety of level 1, level 2: HBsAg, HIV antibody, HCV antibody, TP antibody are negative.

【Precautions/Warnings】

1. For In Vitro Diagnostic Use.
2. Each unit of whole blood used in the manufacturer of the calibrators was tested by CFDA approved methods and found non-reactive for HbsAg, HCV, HIV-1, HIV-2 and TP. No test method can offer complete assurance from infection. In accordance with good laboratory practice, all human source material should be considered potentially infectious; therefore, handle the calibrators with the same precautions used with patient specimens.

【Calibration Referring Value】

See the reference Value on the vial.

【Manufacturer】

Shenzhen Lifotronic Technology Co., Ltd

Add: Unit A, 4th Floor, Building 15, Yijing Estate, No.1008 Songbai Road, Nanshan District, Shenzhen City,
Guangdong Province, 518055, P.R.China

Mail: service@lifotronic.com

【Authorized representative in the European Community】

Shanghai International Holding Corp. GmbH (Europe)

Add: Eiffestrasse 80, 20537 Hamburg, Germany

【Version and Modification Date】

Version: A5

Modification Date: 2018-03-16

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HbA1c Control Material

Packing Insert

【Intend Use】

HbA1c Control Material is intended for the system quality control for accuracy and repeatability.

【Application】

The Control Materials were made from human whole blood. It will compare the measuring results in sample test program with reference range

【Composition】

1. The Control Material includes hemoglobin from lyophilized whole blood, preservatives and stabilizers.
2. It's traceable to NGSP Ion Exchange Chromatography method.

【Packing Specification】

The kit includes Control Material Level 1, Level 2
2×0.1mL

【Expiry Date】

1. Store at 2~8°C, keep in dark place. The Control Material is provided in lyophilized form for increased stability
2. Expiry Date, shelf life is 12 months. After resolved, it will be stable for 7 days at -20°C.

【Operation Step】

1. Open vial, and place at room temperature for 10~15 minutes.
2. Add 100 μ L deionized water with pipette to dissolve Level 1 and Level 2, then stand for 30 minutes.
3. Tighten the vial covers and shake them gently and thoroughly.
4. Then choose suitable centrifuge tubes to dispatch, label and use.

【Reference Range】

See the reference range on the vial.

【Explanation of QC Results】

The measured QC results should be in reference range. If not, the whole system should be checked, such as the calibrator expiry date, stored condition and system status.

【Performance Standard】

1. Appearance: Visual inspection: be red loose dried frozen aquatic products, be red liquid after redissolving.
2. Packing volume of level 1, level 2: ≥ 2.7 g.
3. Accuracy of level 1, level 2: Bias% should be in the range of $\pm 10\%$.
4. Intra-assay precision of level 1, level 2: CV $\leq 5\%$.
5. Inter-assay precision of level 1, level 2: CV $\leq 10\%$.
6. Bio-safety of level 1, level 2: HBsAg, HIV antibody, HCV antibody, TP antibody are negative.

【Precautions/Warnings】

1. For In Vitro Diagnostic Use.
2. Each unit of whole blood used in the manufacturer of the Control Materials was tested by CFDA approved

methods and found non-reactive for HbsAg, HCV, H1Y-1, HIV-2 and TP. No test method can offer complete assurance from infection. In accordance with good laboratory practice, all human source material should be considered potentially infectious; therefore, handle the Control Materials with the same precautions used with patient specimens

3. Besides the given reference range, laboratories could establish inner QC program according to real condition, and then determined reference range.

4. Use caution in disposing of the materials according to local regulations and law

【Manufacturer】

Shenzhen Lifotronic Technology Co., Ltd

Add: Unit A, 4th Floor, Building 15, Yijing Estate, No.1008 Songhai Road, Nanshan District, Shenzhen City, Guangdong Province, 518055, P.R.China

Mail: service@lifotronic.com

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Version: A5

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