

## CALIBRATION CERTIFICATE

Calibration of the **LIFOTRONIC-H9** (Fully Automated Hemoglobin Analyzer) has been carried out as per the recommendations of the principle company **SHENZHEN LIFOTRONIC TECHNOLOGY CO., LTD**, China.

**Customer Name & Address:**

**REDCLIFFE LIFETECH PVT. LTD.,**  
**#6A/F-01, VRINDAVAN YOJNA, RB ROAD,**  
**LUCKNOW- 226 012.**

Installation Date : **11.07.2022**  
 Calibration Date : **11.07.2022**  
 Calibration Due Date: **10.07.2023**

**Instrument Serial No:**

**IA2B00001016**

**Software Version Information:**

System Version:	<b>01.00.21-S</b>
MCU1 Version:	<b>01.00.09-S</b>
MCU2 Version:	<b>01.00.04-S</b>

**Monitoring Information:**

	<b>96s-HbA1C</b>
Test Mode	<b>90</b>
HP Pressure pump stepping Value	<b>38</b>
Column Temp	<b>40</b>
H9 Temp	<b>66</b>
N.P.	<b>25312</b>
ADC 415	<b>18124</b>
ADC 500	<b>7126</b>
ADC	

### INSTRUMENT CALIBRATION DATAS:

**Global Data:**

**System Parameters:**

**2D Arm Parameters:**

<b>X-axis</b>	<b>Value</b>
Rack Routine(50-200mm)	116
ST Routine(50-200mm)	148

<b>Z-axis</b>	<b>Value</b>
Blood Tube Routine(10-250mm)	115
Diluted Tube Routine(10-250mm)	46
Diluting Cup Routine(10-250mm)	200
Press Cap Routine(10-100mm)	50

**Hardware Parameter Settings:**

High Pressure Pump Stepping value	90
Distance from Rack Detector to 1 <sup>st</sup> Tube(0-50mm)	3
Distance Between 2 Consecutive Tubes(150-250mm)	197

**Operation Parameters:**

<b>Test Mode</b>	96s-HbA1C
Reagent Version	A1
HbA1C Area Ratio	100
Variant Ratio Limit	10

**Elution Parameters:**

<b>Peaks</b>	<b>Start Time</b>	<b>End Time</b>
HbA1a	7	14
HbA1b	14	18
HbF	18	23
LA1C	23	28
HbA1C	34	47
HbA0	50	90

**Pressure Settings:**

<b>Parameters</b>	<b>Value</b>
Pressure (Mpa) >	3
Pressure (Mpa) <	12
HP Pump(PPS)	90

**Adjustment:**

Parameters	Value
C-LED	2155
Gain 415	25241
Gain 500	18152

**Reagent Setup:**

Parameters	Value
Reagent Version	SX
Test Mode	90s-HbA1C

**Matrix Labs. Representatives:**  
**Date: 11.07.2022**

**A. Performed By:**

Instrument has been checked thoroughly and ensured the performance of the instrument and can be released for the routine operation.

*M. Parasuraman*

**PARASURAMAN M**

(Manager – Customer Support Signature & Name)

**B. Verified By:**

Instrument has been verified & released for the routine operation.

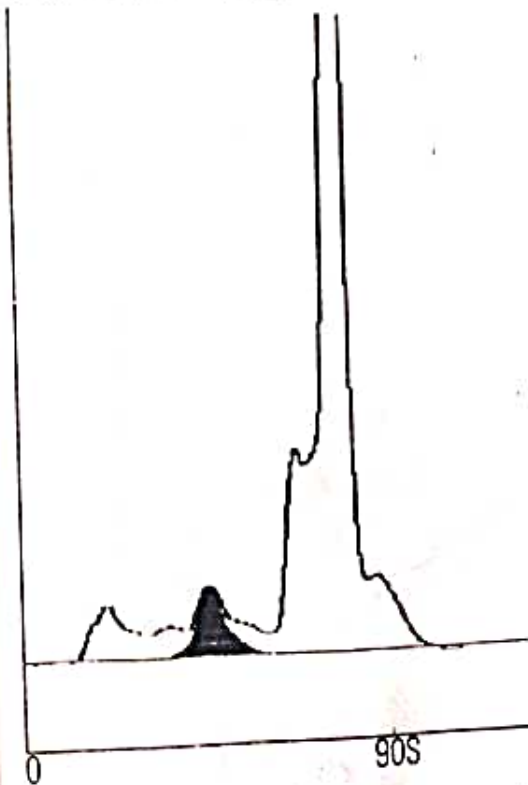
*A. Ravikumar*

**A.RAVIKUMAR**

(G.M.-Engineering Services Signature & Name)

# HbA1c

Time: 12:54:48  
 Date: 2023-02-20  
 Type: QC  
 Rack No.: 0001  
 Rack Position: 02  
 Sample ID: 9SX1220010  
 Running No.: 0002



Peak	Time	ABS	Area	Area%
HbA1a	12	0.0003	0.011	0.2
HbA1b	16	0.0016	0.068	1.6
HbF	22	0.0011	0.068	1.6
LA1c	38	0.0024	0.044	1.0
HbA1c	40	0.0024	0.284	6.2
HbA0	66	0.0757	3.724	89.4
V_win	0	0.0000	0.000	0.0

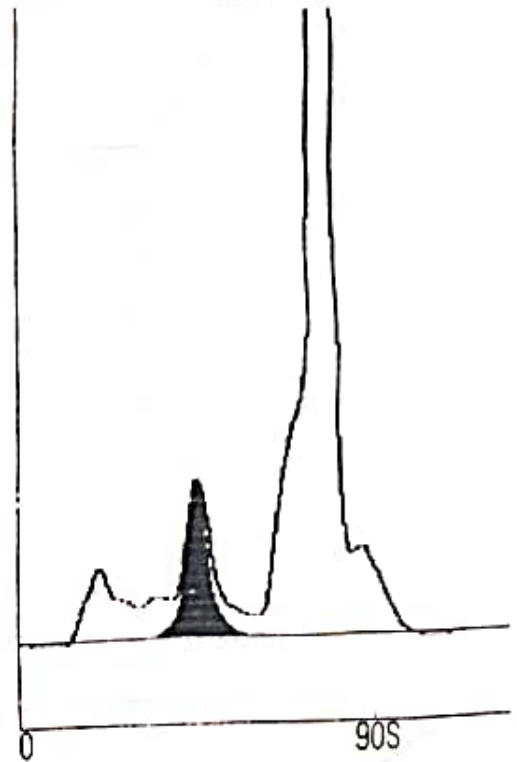
Total Area: 4.199

HbA1c	6.2% ↑	NGSP
HbA1c	44.2mmol/mol	IFCC
eAG	7.2mmol/l	ADA
eAG	130.8mg/dl	ADA

Reference Range: 4.0%-6.1%  
 Operator:

# HbA1c

Time: 12:56:28  
 Date: 2023-02-20  
 Type: QC  
 Rack No.: 0001  
 Rack Position: 03  
 Sample ID: 9SX1220010  
 Running No.: 0003



Peak	Time	ABS	Area	Area%
HbA1a	12	0.0004	0.015	0.3
HbA1b	16	0.0022	0.092	1.8
HbF	22	0.0016	0.095	1.9
LA1c	37	0.0054	0.065	1.3
HbA1c	39	0.0053	0.539	10.9
HbA0	66	0.0863	4.188	83.8
V_win	0	0.0000	0.000	0.0

Total Area: 4.994

HbA1c	10.9% ↑	NGSP
HbA1c	95.6mmol/mol	IFCC
eAG	14.7mmol/l	ADA
eAG	265.3mg/dl	ADA

Reference Range: 4.0%-6.1%  
 Operator: