

## 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  
#102, SHREE TOWER, MAIN BYPASS ROAD,  
DASARAHA, PO+PS BERUR, BIIAR- 800 002.

Installation Date : 20.07.2022  
Calibration Date : 20.07.2022  
Calibration Due Date: 19.07.2023

Instrument Serial No:

IA2B00001125

**Software Version Information:**

System Version:	01.00.21-S
MCU1 Version:	01.00.01-H
MCU2 Version:	01.00.01-G

**Monitoring Information:**

Test Mode	96s-HbA1C
HP Pressure pump stepping Value	93
Column Temp	38
H9 Temp	42
ADC 415	25200
ADC 500	18100
ADC	7147

**INSTRUMENT CALIBRATION DATAS:**

**Global Data:**

**System Parameters:**

**2D Arm Parameters:**

X-axis	Value
Rack Routine(50-200mm)	112
ST Routine(50-200mm)	147

Z-axis	Value
Blood Tube Routine(10-250mm)	116
Diluted Tube Routine(10-250mm)	47
Diluting Cup Routine(10-250mm)	200
Press Cap Routine(10-100mm)	50

**Hardware Parameter Settings:**

High Pressure Pump Stepping value	93
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>	<b>96s-HbA1C</b>
Reagent Version	A1
HbA1C Area Ratio	100
Variant Ratio Limit	10

**Elution Parameters:**

Peaks	Start Time	End Time
HbA1a	7	14
HbA1b	14	18
HbF	18	23
LA1C	23	28
HbA1C	37	47
HbA0	50	90

**Pressure Settings:**

Parameters	Value
Pressure (Mpa) >	3
Pressure (Mpa) <	12
HP Pump(PPS)	93

**Flow cell Adjustment:**

Parameters	Value
DAC_LED	1975
Gain 415	25300
Gain 500	18100

**Reagent Setup:**

Parameters	Value
Reagent Version	SX
Test Mode	90s-HbA1C

**Matrix Labs. Representatives:****Date: 20.07.2022****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**

**(Sr.Engineer – Customer Support Signature & Name)**

**B. Verified By:**

Instrument has been verified & released for the routine operation.

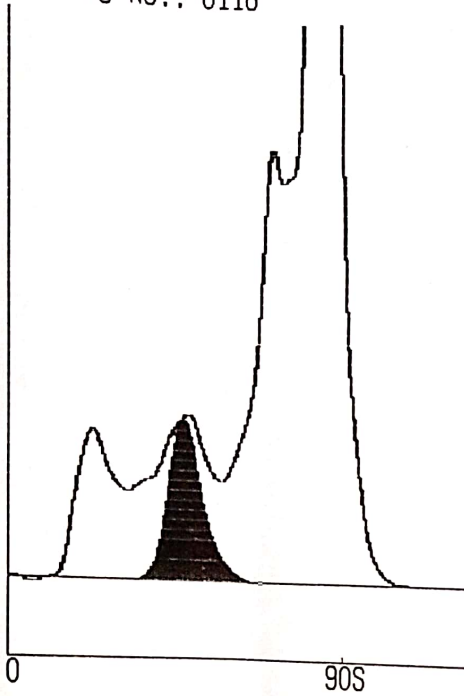
*A.Ravikumar*

**A.RAVIKUMAR**

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

# HbA1c

Time: 13:39:38  
 Date: 2023-03-11  
 Type: QC  
 Rack No.: 0019  
 Rack Position: 02  
 Sample ID: H8SX220200  
 Running No.: 0118



Peak	Time	ABS	Area	Area%
HbA1a	12	0.0006	0.027	0.1
HbA1b	16	0.0047	0.191	1.3
HbF	22	0.0045	0.273	1.9
LA1c	38	0.0065	0.181	1.2
HbA1c	40	0.0067	0.978	6.4
HbA0	72	0.1785	12.510	89.1
V_Win	0	0.0000	0.000	0.0

Total Area: 14.160

HbA1c	6.4% ↑	NGSP
HbA1c	46.4mmol/mol	IFCC
eAG	7.5mmol/l	ADA
eAG	136.5mg/dl	ADA

Reference Range: 4.0%-6.1%  
 Operator:

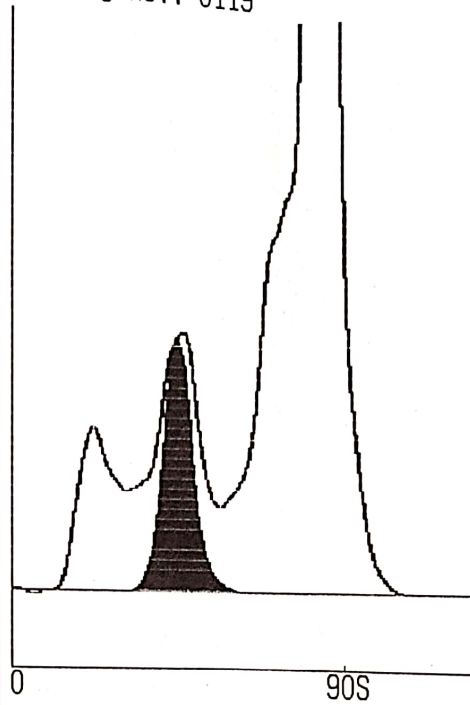
Lab Name: Redcliffe Lab

Lab Address: Patna

Lab Telephone: Kang  
 11/3/23

# HbA1c

Time: 13:41:18  
 Date: 2023-03-11  
 Type: QC  
 Rack No.: 0019  
 Rack Position: 03  
 Sample ID: H8SX220200  
 Running No.: 0119



Peak	Time	ABS	Area	Area%
HbA1a	12	0.0006	0.027	0.2
HbA1b	16	0.0049	0.200	1.5
HbF	22	0.0049	0.295	2.2
LA1c	37	0.0099	0.201	1.5
HbA1c	39	0.0102	1.316	9.7
HbA0	72	0.1612	11.160	84.9
V_Win	0	0.0000	0.000	0.0

Total Area: 13.199

HbA1c	9.7% ↑	NGSP
HbA1c	82.5mmol/mol	IFCC
eAG	12.8mmol/l	ADA
eAG	230.9mg/dl	ADA

Reference Range: 4.0%-6.1%  
 Operator:

Lab Name: Redcliffe Lab

Lab Address: Patna

Lab Telephone: Kang  
 11/3/23