

## CALIBRATION CERTIFICATE

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

<b>Customer Name &amp; Address:</b>  REDCLIFFE LIFE TECH PVT.LTD, 27/A ,Near HDFC Bank ,Shastri Circle,Jodhpur	Installation Date : 06.12.2022 Calibration Date : 06.12.2022 Calibration Due Date: 06.12.2023
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<b>Serial No:</b>	<b>IA2B20C00428</b>
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**Software Version Information:**

System Version:	<b>01.00.22</b>
MCU1 Version:	<b>01.00.02</b>
MCU2 Version:	<b>01.00.01</b>

**Monitoring Information:**

Test Mode	Variant 2
HP Pressure pump stepping Value	<b>111</b>
Column Temp	<b>35</b>
H9 Temp	<b>34.9</b>
N.P.	<b>66</b>
ADC 415	<b>25012</b>
ADC 500	<b>18124</b>
ADC	<b>5926</b>

**INSTRUMENT CALIBRATION DATAS:**

**Global Data:**

**System Parameters:**

**2D Arm Parameters:**

<b>X-axis</b>	<b>Value</b>
Rack Routine(50-200mm)	<b>115</b>
ST Routine(50-200mm)	<b>148</b>

<b>Z-axis</b>	<b>Value</b>
Blood Tube Routine(10-250mm)	<b>117</b>
Diluted Tube Routine(10-250mm)	<b>47</b>
Diluting Cup Routine(10-250mm)	<b>200</b>
Press Cap Routine(10-100mm)	<b>50</b>

**Hardware Parameter Settings:**

High Pressure Pump Stepping value	<b>115</b>
Distance from Rack Detector to 1 <sup>st</sup> Tube(0-50mm)	<b>4</b>
Distance Between 2 Consecutive Tubes(150-250mm)	<b>196</b>

**Operation Parameters:**

<b>Test Mode</b>	<b>Variant 2</b>
Reagent Version	<b>SX</b>
E/D/S/C Peak ABS Limit	<b>51</b>
Variant Ratio Limit	<b>10</b>

**Elution Parameters:**

<b>Peaks</b>	<b>Start Time</b>	<b>End Time</b>
HbA1a	<b>9</b>	<b>15</b>
HbA1b	<b>15</b>	<b>25</b>
HbF	<b>25</b>	<b>35</b>
LA1C	<b>35</b>	<b>45</b>
HbA1C	<b>45</b>	<b>65</b>
P3	<b>65</b>	<b>90</b>

**Variant Parameters:**

<b>Peaks</b>	<b>Start Time</b>	<b>End Time</b>
P4	<b>90</b>	<b>110</b>
HbA0	<b>110</b>	<b>165</b>
HbA2	<b>165</b>	<b>220</b>
HbE	<b>220</b>	<b>238</b>

HbD	238	254
HbS	254	290
HbC	290	330

**Pressure Settings:**

Parameters	Value
N.P(%)	66
N.P.(s)	60
Pressure (Mpa) >	3
Pressure (Mpa) <	12
HP Pump(PPS)	115

**Flow cell Adjustment:**

Parameters	Value
DAC LED	2000
Gain 415	25241
Gain 500	18652

**Reagent Setup:**

Parameters	Value
Reagent Version	SX
Test Mode	Variant 2

**Matrix Labs. Representatives:**

**Date: 06.12.2022**

**A. Performed By:**

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



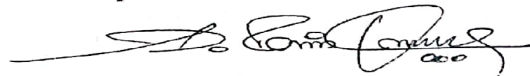
**M.M.Khan**

**(Sr.Engineer Customer Support Signature &**

**Name)**

**B. Verified By:**

Instrument has been verified & released for the routine operation.

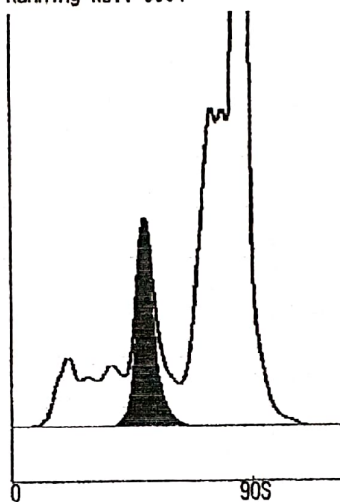


**A.RAVIKUMAR**

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

### HbA1c

Time: 13:43:58  
 Date: 2023-07-11  
 Type: QC  
 Rack No.: 0002  
 Rack Position: 03  
 Sample ID: 85852  
 Running No.: 0004



Peak	Time	ABS	Area	Area%
HbA1a	12	0.0007	0.029	0.2
HbA1b	16	0.0029	0.125	1.0
HbF	22	0.0025	0.158	1.3
LA1c	42	0.0107	0.126	1.0
HbA1c	44	0.0105	1.147	9.8
HbA0	73	0.2315	10.344	86.7
V_Win	0	0.0000	0.000	0.0

Total Area: 11.929

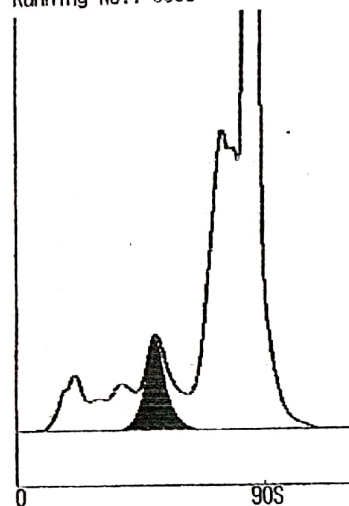
HbA1c	9.8% ↑	NGSP
HbA1c	83.6mmol/mol	IFCC
eAG	12.9mmol/l	ADA
eAG	233.8mg/dl	ADA

Reference Range: 4.0%-5.7%  
 Operator:

*mg*

### HbA1c

Time: 13:42:18  
 Date: 2023-07-11  
 Type: QC  
 Rack No.: 0002  
 Rack Position: 02  
 Sample ID: 85851  
 Running No.: 0003



Peak	Time	ABS	Area	Area%
HbA1a	12	0.0007	0.027	0.2
HbA1b	16	0.0023	0.100	0.9
HbF	22	0.0016	0.118	1.1
LA1c	42	0.0049	0.081	0.7
HbA1c	44	0.0048	0.600	5.4
HbA0	73	0.2181	9.636	91.7
V_Win	0	0.0000	0.000	0.0

Total Area: 10.562

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

Reference Range: 4.0%-5.7%  
 Operator:

*mg*