

# CALIBRATION CERTIFICATE

## Centre for Calibration

a unit of

**NAGMAN GROUP OF COMPANIES**

No.168/7, Chennai - Bangalore National Highway,  
Chembarambakkam, Chennai - 600 123. Tamilnadu. INDIA

Phone : 044 -66777000, 66777066 (Lab), Marketing : 044 - 66777077

Fax : 044 - 26811703 E-Mail : cfcchennai@nagman.com, calibration@nagman.com

Site : www.nagman-calibration.com



CFC / FT - 01/5.10



CC-2548

<b>ULR-CC254818000001056F</b>		<b>Certificate No. 2018-19 / CFC / 1504 / 1</b>	
Customer Name and Address		M/s. Indian Immunologicals Ltd., Survey No: 281-284 & 321, Biotech Park Phase III, Karakapatta Markook Mandal, Siddipet Dist, Telangana - 502 281.	
Customer Reference		P.O. No.: 4511002581	Dated: 07.08.2018
<b>Details of the Instrument</b>			
Description		Low Temperature Calibrator Bath (Dual Tank)	
Make		Nagman	
Model		NAG - CS01 (Dual Tank)	
Serial number		LT 1810 T0809	
Identification Number		-	
Tank 1 Range		-40°C to 0°C	
Tank 2 Range		5°C Above Ambient to 150°C	
Resolution		Tank 1: 0.1°C (-40.0 to -20.0) & 0.01°C (-19.99 to 0.00) Tank 2: 0.01°C (up to 99.99°C) & 0.1°C (rest of the range)	
Accuracy		Not Specified	
Equipment received on		29.09.2018	
Condition of the equipment on receipt		Good	
Calibration procedure number		CFC / WI-T05	
Date of calibration		29.09.2018	
Date of next calibration suggested		29.09.2019	
<b>Calibration environments</b>			
Temperature		25°C±3°C	
Relative Humidity		45% to 75%RH	
<b>Master Instrument Details</b>		<b>Master 1</b>	<b>Master 2</b>
Description		RTD	Digital Multimeter
Make		ASP	Agilent
Type / Model		PRP 660	34401 A
Serial number		617124	MY47018587
Report Number		2017-18/CFC/MASTER/250	2018-19/CFC/MASTER/073
Calibration valid till		04/03/2019	13/09/2019
The Standards used are traceable to National / International Standards			

### CALIBRATION DATA

**1. Tank 1**

Set Temperature (UUC) °C	Read Temperature (UUC) °C	Standard Eq. Reading (Mean) °C	Deviation °C	Deviation Allowed (±) °C	Expanded Uncertainty (±) °C	Coverage Factor k
-40.0	-40.0	-39.93	-0.07	-	0.27	2.00
-30.0	-30.0	-29.86	-0.14	-	0.27	2.00
-20.0	-20.0	-19.92	-0.08	-	0.27	2.00
-10.00	-10.00	-9.93	-0.07	-	0.26	2.00
0.00	0.00	0.02	-0.02	-	0.26	2.00

Checked by  J. Siva Team Member		Authorised Signatory  P. Gunavathi Team Leader
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### CALIBRATION DATA

#### 2. Tank 2

Set Temperature (UUC)	Read Temperature (UUC)	Standard Eq. Reading (Mean)	Deviation	Deviation Allowed ( $\pm$ )	Expanded Uncertainty ( $\pm$ )	Coverage Factor $k$
$^{\circ}\text{C}$	$^{\circ}\text{C}$	$^{\circ}\text{C}$	$^{\circ}\text{C}$	$^{\circ}\text{C}$	$^{\circ}\text{C}$	
50.00	50.00	50.11	-0.11	-	0.26	2.00
80.00	80.00	80.21	-0.21	-	0.26	2.00
110.0	110.0	110.19	-0.19	-	0.27	2.00
130.0	130.0	129.99	0.01	-	0.27	2.00
150.0	150.0	149.82	0.18	-	0.27	2.00

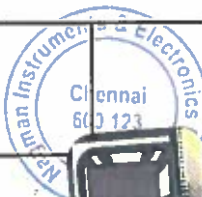
#### Remarks:-

1. The above UUC was calibrated at Lab.
2. UUC is defined as Unit Under Calibration.
3. The measurement confidence level is 95.45%.
4. The Calibration Certificate shall not be reproduced except in full without written approval of CFC.
5. The above Expanded Uncertainty includes Repeatability, Bath stability, Resolution & Uncertainty of Measurement.
6. Temperature Scale : International Temperature Scale 1990 (ITS 90).
7. The above results relates only to the item calibrated.


Checked by



T. Siva  
Team Member



Authorised Signatory

  
P. Gunavathi  
Team Leader