

## CALIBRATION CERTIFICATE

Certificate No: SBS/CL/23/02059

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ULR NO : CC34042300002059F

**Customer Name & Address**

|   |                          |                   |
|---|--------------------------|-------------------|
| REGIONAL RESEARCH INSTITUTE OF UNANI MEDICINE,<br>NO.1,WEST MADHA CHURCH ROAD,ROYAPURAM,CHENNAI-600013. | SRF No.                  | SRF/23/00034-0008 |
|   | SRF Date                 | 07-03-2023        |
|   | Date of Receipt          | 07-03-2023        |
|   | Date of Calibration      | 07-03-2023        |
|   | Due Date for Calibration | 06-03-2024        |
|   | Issue Date               | 07-03-2023        |

**Details of Unit Under Calibration**

|               |                  |                     |  |
|---------------|------------------|---------------------|--|
| Description   | Micro Pipette    | Make                | THERMO SCIENTIFIC                          |
| Range         | 100-1000µl       | Model               | LABPIPETTE                                 |
| Resolution    | 5µl              | Material            | PVC  |
| Serial Number | JW00641          | Operating Range     | 100-600µl                                  |
| ID Number     | RRIUMC EQ BC 009 | Condition of UUC    | Good                                       |
| Cal. At       | Mechanical Lab   | Instrument Location | INSTRUMENTATION ROOM,DEPT. OF BIOCHEMISTRY |

**Environmental Condition**

**Calibration Method Used**

|                             |      |                        |      |                                   |                 |
|-----------------------------|------|------------------------|------|-----------------------------------|-----------------|
| Temperature (°C)            | 24.6 | Humidity (%RH)         | 52   | National / International Standard | ISO 8655-6:2002 |
| Atmospheric Pressure (mbar) | 1006 | Water Temperature (°C) | 21.6 | Cal Procedure No                  | SBS/CP/ML/08    |

**Standard Used**

| Sl. No. | Description                   | ID.No. / Sl. No. | Certificate No.     | Make/Model   | Traceability       | Valid till |
|---------|-------------------------------|------------------|---------------------|--------------|--------------------|------------|
| 1       | Electronic Semi Micro Balance | 15112918         | TVCSPL22/12/2115-01 | A&D & GH-252 | National Standards | 09-12-2023 |

Z Factor: 1.00319

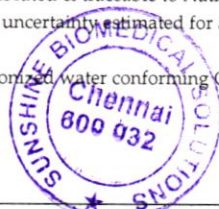
| Result of Calibration in µl |               |                   |        |        |        |        |            |                  |              |                             |
|-----------------------------|---------------|-------------------|--------|--------|--------|--------|------------|------------------|--------------|-----------------------------|
| Sl. No.                     | Nominal Value | Observed Readings |        |        |        |        | Mean Value | Systematic Error | Random Error | Measurement Uncertainty (±) |
|                             |               |                   |        |        |        |        |            |                  |              |                             |
| 1                           | 100           | 99.92             | 99.94  | 99.96  | 99.93  | 99.94  | 99.95      | -0.05            | 0.02         | 0.47                        |
|                             |               | 99.93             | 99.95  | 99.96  | 99.98  | 99.96  |            |                  |              |                             |
| 2                           | 500           | 499.85            | 499.87 | 499.89 | 499.86 | 499.87 | 499.87     | -0.13            | 0.01         | 0.47                        |
|                             |               | 499.86            | 499.88 | 499.89 | 499.87 | 499.89 |            |                  |              |                             |
| 3                           | 1000          | 999.74            | 999.76 | 999.77 | 999.78 | 999.77 | 999.77     | -0.23            | 0.01         | 0.47                        |
|                             |               | 999.76            | 999.78 | 999.79 | 999.77 | 999.78 |            |                  |              |                             |

**Remarks**

- 1.This Calibration certificate shall not be reproduced except in full, without written approval of the laboratory.
- 2.The user should determine the suitability of the instrument for its intended use.
- 3.The recalibration interval should be determined on the user requirement.
- 4.The results stated in this certificate relate only to the item calibrated.
5. Equipment used for Calibration were calibrated & traceable to National & International Standards
- 6.The indicated uncertainties are expanded uncertainty estimated for a confidence level of approximately 95% for a coverage factor k=2.00 .
7. Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

Calibrated By,

  
 (Calibration Engineer)  
 P.MYLSAMY



Authorised by:

  
 (Quality Manager/Chief Executive)  
 D.VETRI SELVI



CC-2144

**CERTIFICATE OF CALIBRATION**

|  |                             |                      |                  |
|--|-----------------------------|----------------------|------------------|
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| ULR No. :  | CC214422000007634F          | Date of Issue :      | 12-12-2022       |
| Certificate No. :  | TVCSP 22/12/2115-01         | Recom. Due Date :    | 09-12-2023       |
| Date of Calibration :  | 10-12-2022                  | Customer Details :   | SRF No. : 2115   |
| M/s.Sunshine Biomedical Solutions,<br>No.68, Poomagal Main Road,<br>First Floor, Ekkatuthangal,<br>Chennai-600032. |                             | Calibrated at :      | On-Site          |
|  |                             | Date of Receipt :    | 10-12-2022       |
|  |                             | Cond. On Receipt :   | Satisfactory     |
| Details of Test Instrument:  |                             |                      |                  |
| Description :  | Electronic Weighing Balance | Model No. :          | GH-252           |
| Range :  | 0 to 101g/ 220g             | Serial No :          | 15112918         |
| Least Count :  | 0.00001 g/0.0001g           | Identification No. : | SBS/MLAB/EWB/013 |
| Make :   | A&D                         | Class(OIML) :        | Class I          |
| Working range :  | --                          | Location :           | Mechanical Lab   |
| Verification Interval(e) :   | 0.0001g/0.001g              |                      |                  |
| Details of Standard Used :   |                             |                      |                  |
| Name   | Certificate No.             | Valid upto           | Traceability     |
| E1 Class Standard Weights  | TVCSP 22/05/694-03          | 03-May-23            | TVCSP, Chennai.  |
| Work Instruction :   | WI-M-01                     |                      |                  |
| Environmental Details :  | Temperature: 25±5 °C        | Relative Humid       | 40-70 % RH       |

**MECHANICAL CALIBRATION**

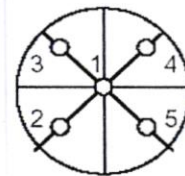
(Weighing Scale & Balance)

**Calibration Results**

1. Eccentricity

| Sr. No. | Position of Weights used | Test Reading (g) | Error between centre(1) and Other points (g) |
|---------|--------------------------|------------------|--|
| 1       | 3                        | 50.00002         | 0.00001                                      |
| 2       | 4                        | 50.00001         | 0.00000                                      |
| 3       | 1                        | 50.00001         | 0.00000                                      |
| 4       | 2                        | 50.00002         | -0.00001                                     |
| 5       | 5                        | 50.00002         | -0.00001                                     |

Maximum Error between centre (1) and other points  
0.00001 g



Calibrated by :  
*K. Kameshwaran*  
Mr.K.Kameswaran  
(Calibration Engineer)

Authorised by:  
*Anand Manoharan*  
Mr.Anand Manoharan  
(QM & TM)

