

CALIBRATION CERTIFICATE

Customer Name & Address : Precise Healthcare
No.27/1,4th Main Road,Hosakerehalli,
Dattareya Nagar,BSK 3rd Stage,Bangalore-560085

Customer's Reference: **SRF No.:** 1420 **Dated** :05 Aug 2023

| Calibration Certificate Number | Calibrated On | Recommended Calibration Due | Page Number |
|--------------------------------|---------------|-----------------------------|-------------|
| UC/23/1420-01 | 05 Aug 2023 | 04 Aug 2024 | 1 of 2 |

ULR No.: CC299623000002607F

Date of Issue: 11 Aug 2023

Details of device under calibration (DUC):

| | |
|--------------------------------|--|
| DUC : Micro Pipette | Calibration Procedure No. : UC/CAL/205 |
| Make : Dragon Lab | No. of Pages : 2 |
| Range : 5-50µl | DUC Received :05 Aug 2023 |
| SI No. : YE217AS0261162 | DUC Condition on receipt : Satisfactory |
| ID No. : --- | Cal At : Mass Lab.UltraCal |

Environmental Conditions: Temp. :(23 ± 2)°C ,Relative Hum.:(40 to 60)%, Atm.Pressure:912.1mbar

Standards used:

| Sl. No. | Nomenclature | Make | Sl. No/ID No | Traceable to/ Cert. No. | Validity |
|---------|--------------------|--------|--------------|-------------------------|--------------|
| 1 | Electronic Balance | Radwag | 573977 | LCGC / TC/10332/2023 | 04 July 2024 |

Note:

- 1.The Calibration Certificate relates only to the above DUC
- 2.Publication or reproduction of this certificate in any form other than by complete set of the whole certificate & in the language, written, is not permitted without the written consent of Ultracal.
- 3.Corrections/erasing, invalidate the Calibration certificate
- 4.Calibration of the DUC are traceable to National standards/International Standards
- 5.Any error in this certificate should be brought to our knowledge within 45 days from the date of this certificate.
- 6.Results Reported are valid at the time of and under the stated conditions of measurements.
- 7.The usage of NABL Symbol is as per NABL guidelines NABL 133

Calibrated By


Speerthi.N.M

(Calibration Engineer)



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Authorised By


Shreyas.B.V

(Technical Manager)

Range : 5-50 μ l

Increment : 0.5 μ l

| Sl. No. | Micropipette Set Volume in μ l | Standard Balance Reading in g | Actual Calculated Volume @ 27°C in μ l | Average Volume in μ l | Systematic Error, \pm in μ l | Random Error, in \pm in μ l |
|---------|------------------------------------|-------------------------------|--|---------------------------|------------------------------------|-----------------------------------|
| 1 | 10 | 0.00981 | 9.84 | 9.91 | -0.09 | 0.07 |
| 2 | | 0.00979 | 9.82 | | | |
| 3 | | 0.00997 | 10.01 | | | |
| 4 | | 0.00982 | 9.85 | | | |
| 5 | | 0.00995 | 9.99 | | | |
| 6 | | 0.00982 | 9.85 | | | |
| 7 | | 0.00996 | 10.00 | | | |
| 8 | | 0.00989 | 9.92 | | | |
| 9 | | 0.00991 | 9.94 | | | |
| 10 | | 0.00983 | 9.86 | | | |
| 11 | 25 | 0.02513 | 25.22 | 25.12 | 0.12 | 0.11 |
| 12 | | 0.02487 | 24.96 | | | |
| 13 | | 0.02513 | 25.22 | | | |
| 14 | | 0.02517 | 25.26 | | | |
| 15 | | 0.02497 | 25.06 | | | |
| 16 | | 0.02511 | 25.20 | | | |
| 17 | | 0.02495 | 25.04 | | | |
| 18 | | 0.02503 | 25.12 | | | |
| 19 | | 0.02489 | 24.98 | | | |
| 20 | | 0.02507 | 25.16 | | | |
| 21 | 50 | 0.04977 | 49.95 | 50.17 | 0.17 | 0.17 |
| 22 | | 0.05002 | 50.20 | | | |
| 23 | | 0.05011 | 50.29 | | | |
| 24 | | 0.05009 | 50.27 | | | |
| 25 | | 0.04997 | 50.15 | | | |
| 26 | | 0.04974 | 49.92 | | | |
| 27 | | 0.05013 | 50.31 | | | |
| 28 | | 0.05021 | 50.39 | | | |
| 29 | | 0.05011 | 50.29 | | | |
| 30 | | 0.04979 | 49.97 | | | |

Measurement Uncertainty : \pm 0.30 μ l

Conclusion / Remarks:

- 1 Measurement uncertainty is at confidence level 95% which corresponds to a coverage factor of $k=2.23$
- 2 Calibration is performed as per ISO 8655 - 6 : 2002 (E)
- 3 Gravimetric Method is adopted for calibration
- 4 Calibration points selected as per customer request

Calibrated By



Sporthi.N.M
(Calibration Engineer)



Authorised By



Shreyas.B.V
(Technical Manager)