



Ultra Cal

Ultra Cal

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CC-2996

CALIBRATION CERTIFICATE

Customer Name & Address : MEDRAY CLINICS PVT LTD.,
Laboratory,3rd Floor,#962,12 Main Road,
Doopanahalli,Indiranagar,Bangalore-560008

Customer's Reference: **SRF No.:** 1168 **Dated :** 24 Apr 2023

Calibration Certificate Number	Calibrated On	Recommended Calibration Due	Page Number
UC/23/1168-04	25 Apr 2023	24 Apr 2024	1 of 2

ULR No.: CC299623000001282P

Date of Issue: 05 Apr 2023

Details of device under calibration (DUC):

DUC : Micro Pipette	Calibration Procedure No. : UC/CAL/205
Make : ---	No. of Pages : 2
Range : 5-50 μ l	DUC Received : 24 Apr 2023
SI No. : 121701469	DUC Condition on receipt : Satisfactory
ID No. : ---	Cal At : Mass Lab.Ultracal

Environmental Conditions: Temp. : (23 \pm 2) $^{\circ}$ C ,Relative Hum.:(40 to 60)%, Atm.Pressure:911.7mbar


Standards used:

Sl. No.	Nomenclature	Make	Sl. No/ID No	Traceable to/ Cert. No.	Validity
1	Electronic Balance	Radwag	573977	LCGC / TC/8946/2022	04 July 2023

Note:

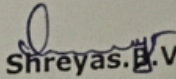
- 1.The Calibration Certificate relates only to the above DUC
- 2.Publication or reproduction of this certificate in any form other than by complete set of the whole certificate & in the language, written, is not permitted without the written consent of Ultracal.
- 3.Corrections/erasing, invalidate the 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


Spoorthi.N.M

(Calibration Engineer)

**Authorised By**


Shreyas.B.V
(Technical Manager)

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Calibration Certificate Number

ULR No.: CC299623000001282P

UC/23/1168-04

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Range : 5-50 μ l

Increment : 1 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	0.01013	10.17	10.10	0.10	0.07
2		0.01003	10.07			
3		0.00997	10.01			
4		0.01016	10.20			
5		0.01005	10.09			
6		0.01011	10.15			
7		0.00996	10.00			
8		0.01011	10.15			
9		0.01004	10.08			
10		0.01013	10.17			
11	25	0.02514	25.23	25.22	0.22	0.09
12		0.02520	25.29			
13		0.02516	25.25			
14		0.02523	25.32			
15		0.02511	25.20			
16		0.02503	25.12			
17		0.02525	25.34			
18		0.02503	25.12			
19		0.02498	25.07			
20		0.02517	25.26			
21	50	0.05029	50.47	50.39	0.39	0.12
22		0.05040	50.58			
23		0.05014	50.32			
24		0.05026	50.44			
25		0.05031	50.49			
26		0.05007	50.25			
27		0.05003	50.21			
28		0.05022	50.40			
29		0.05011	50.29			
30		0.05027	50.45			

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= 2.20
- 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

Spoorthi.N.M

(Calibration Engineer)

Authorised By

(Technical Manager)

