

CALIBRATION CERTIFICATE

Customer Name & Address : Prakash Diagnostic Laboratory.,
#11A,(76)Opp Shell Petrol Bunk,Near Royal Mart,
Bydarahalli,Magadi Main Road,Bengaluru-560091

Customer's Reference: SRF No.: 1546 **Dated** :23 Dec 2022

Calibration Certificate Number	Calibrated On	Recommended Calibration Due	Page Number
UC/22/1546-01	23 Dec 2022	22 June 2023	1 of 2

ULR No CC299622000003267F

Date of issue: 24 Dec 2022

Details of device under calibration (DUC):

DUC : Micro Pipette	Calibration Procedure No. : UC/CAL/205
Make : Superfit XL	No. of Pages : 2
Range : 100-1000µl	DUC Received :23 Dec 2022
SI No. : RG650203	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:911.9mbar

Standards used:

Sl. No.	Nomenclature	Make	Sl. No/ID No	Traceable to/ Cert. No.	Validity
1	Electronic Balance	Radwag	573977	LCGC / TC/8496/2022	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.BV
(Technical Manager)

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Range : 100 - 1000 μ l

Increment : 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	100	0.09506	95.39	96.02	-3.98	0.60
2		0.09617	96.51			
3		0.09524	95.57			
4		0.09578	96.12			
5		0.09606	96.40			
6		0.09513	95.46			
7		0.09634	96.68			
8		0.09529	95.63			
9		0.09667	97.01			
10		0.09509	95.42			
11	500	0.49325	494.98	495.71	-4.29	0.61
12		0.49389	495.63			
13		0.49347	495.20			
14		0.49489	496.63			
15		0.49363	495.37			
16		0.49398	495.72			
17		0.49445	496.19			
18		0.49397	495.71			
19		0.49490	496.64			
20		0.49329	495.02			
21	1000	0.99256	996.05	996.21	-3.79	0.29
22		0.99243	995.92			
23		0.99243	995.92			
24		0.99314	996.63			
25		0.99257	996.06			
26		0.99298	996.47			
27		0.99321	996.70			
28		0.99249	995.98			
29		0.99278	996.27			
30		0.99259	996.08			

Measurement Uncertainty : \pm 0.30 μ l upto 100 μ l

Conclusion / Remarks: 1.27 μ l above 50 μ l


- 1 Measurement uncertainty is at confidence level 95% which corresponds to a coverage factor of k= 2.26
- 2 Calibration is performed as per ISO 8655 - 6 : 2002 (E)
- 3 Gravimetric Method is adopted for calibration

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Spoorthi.N.M
(Calibration Engineer)



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Shreyas.B.V
(Technical Manager)