EQUATION
Quality Begins With Us

CC-2760

CALIBRATION CERTIFICATE

EQN/FT/7.8/01						Page 1 of 2
CRF No.	:	EQN/CRF/2303174	Date of Calibration	:	25-Mar-23	
Certificate No	:	2022-23/EQN/2303174-03	Recom. Due Date	:	24-Mar-24	
ULR No.	:	CC276023000004535F				
Customer Details			Calibrated at	:	Lab	
M/s. REGIONAL AYURVEDA RESEARCH INSTITUTE			Date of Receipt	:	25-Mar-23	
Opp. Saraswathi Mandapam, Shastri Nagar,			Cond. On Receipt	:	Satisfactory	
Poojapura, Thiruvananthapuram,			Date of Issue	:	28-Mar-23	
Kerala - 695 012						
Details of UUC :						
Description	:	**Micropipette**	Model No.	:	--	
Range	:	10 - 100 µl	Serial No	:	Nil	
Least Count	:	1µl	Identification No.	:	--	
Make	:	Nil	Accuracy	:	As Per ISO 8655-6	
Working range	:	--	Location	:	Lab	

Details of Standard Used :

Name	Certificate No.	Valid upto	Traceability
Electronic SemiMicro Balance	2022-23/EQN/2205021-02	08-May-23	EQN, Chennai.

CP No.	:	EQN/CP/MS-03	Reference Standard : ISO 8655-6
Environmental Details	:	Temperature : 25±2°C	Relative Humidity : 50±10 % RH

MECHANICAL CALIBRATION

(Volume)

Calibration Results

1. Lower Volume : 10 µl **No. of Measurements :** 10

9.99	9.96	9.98	9.99
10.00	10.03	9.95	9.98
10.03	10.00		

Mean Value : 9.99 µl

			Error Limits(±)	
Systematic Error :	-0.01	µl	0.12	µl
Systematic Error :	-0.05	%	1.20	%
Random Error :	0.03	µl	0.08	µl
Random Error :	0.26	%	0.80	%

Measurement Uncertainty : ± 0.37 µl

Calibrated by :

S.B.RAJESH KUMAR
(Sr.Calibration Engineer)

CALIBRATION SERVICES CHENNAI 600 032

Authorised by:

V. RAJKARTHICK
(QM)

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CALIBRATION CERTIFICATE

CRF No. : EQN/CRF/2303174
ULR No. : CC276023000004535F

MECHANICAL CALIBRATION

(Volume)

Calibration Results

2. Middle Volume : 50 µl **No. of Measurements :** 10

50.00	50.09	50.07	50.00
49.98	50.06	50.13	50.15
50.12	50.06		

Mean Value : 50.07 µl

			Error Limits(±)	
Systematic Error :	0.07	µl	0.50	µl
Systematic Error :	0.14	%	1.00	%
Random Error :	0.06	µl	0.20	µl
Random Error :	0.12	%	0.40	%

Measurement Uncertainty : ± 0.37 µl

3. Nominal Volume : 100 µl **No. of Measurements :** 10

100.11	100.35	100.19	100.14
100.19	100.16	100.05	100.13
100.30	100.27		

Mean Value : 100.19 µl

			Error Limits(±)	
Systematic Error :	0.19	µl	0.80	µl
Systematic Error :	0.19	%	0.80	%
Random Error :	0.09	µl	0.30	µl
Random Error :	0.09	%	0.30	%

Measurement Uncertainty : ± 0.37 µl

Remarks

1. The reported Expanded Uncertainty is calculated at 95% C.L with coverage factor *k*= 2
2. The Above Results are within the maximum permisable Error

End of certificate

Calibrated by:
S.B.RAJESH KUMAR
(Sr.Calibration Engineer)

EQUATION CALIBRATION SERVICES ★ CHENNAI 600 032

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CALIBRATION CERTIFICATE

EQN/FT/7.8/01

CRF No.	:	EQN/CRF/2303174	Date of Calibration	:	25-Mar-23
Certificate No	:	2022-23/EQN/2303174-01	Recom. Due Date	:	24-Mar-24
ULR No.	:	CC276023000004533F			

Customer Details

M/s. REGIONAL AYURVEDA RESEARCH INSTITUTE
Opp. Saraswathi Mandapam, Shastri Nagar,
Poojapura, Thiruvananthapuram,
Kerala - 695 012

Calibrated at	:	Lab			
Date of Receipt	:	25-Mar-23			
Cond. On Receipt	:	Satisfactory			
Date of Issue	:	28-Mar-23			

Details of UUC :

Description	:	**Micropipette**	Model	:	Proline
Range	:	10µl	Serial No	:	12648883
Least Count	:	--	Identification No.	:	--
Make	:	Biohit	Accuracy	:	As per Manual
Working range	:	--	Location	:	Lab

Details of Standard Used :

Name	Certificate No.	Valid upto	Traceability
Electronic Semi Micro Balance	2022-23/EQN/2205021-02	08-May-23	EQN, Chennai.

CP No. : EQN/CP/MS-03 Reference Standard : ISO 8655-6

Environmental Details : Temperature : 25±2°C Relative Humidity : 50±10 % RH

Calibration Results

1. Nominal Volume : 10 µl **No. of Measurements :** 10

10.06	10.02	10.00	9.94
9.99	10.03	10.02	10.04
10.05	10.01		

Mean Value : 10.02 µl

			Error Limits(±)	
Systematic Error :	0.02	µl	0.12	µl
Systematic Error :	0.20	%	1.20	%
Random Error :	0.03	µl	0.08	µl
Random Error :	0.35	%	0.80	%

Measurement Uncertainty : ± 0.37 µl

Remarks

1 The reported Expanded Uncertainty is calculated at 95% C.L with coverage factor k=2
2 The Above Results are within the maximum permisable Error

End of certificate

Calibrated by:
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EQUATION CALIBRATION SERVICES * CHENNAI 600 032

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