EQUATION
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CC-2760

CALIBRATION CERTIFICATE

EQN/FT/7.8/01						Page 1 of 2
CRF No.	:	EQN/CRF/2209032	Date of Calibration	:	09-Sep-22	
Certificate No	:	2022-23/EQN/2209032-10	Recom. Due Date	:	08-Sep-23	
ULR No.	:	CC276022000012667F				
Customer Details			Calibrated at	:	Lab	
M/s. SRI KRISHNA CLINICAL LABORATORY			Date of Receipt	:	09-Sep-22	
No : 2 Karungalpatti, 2nd street, Gugai,			Cond. On Receipt	:	Satisfactory	
Salem- 636 006.			Date of Issue	:	12-Sep-22	

Details of UUC :

Description	:	**Micropipette**	Model No.	:	--
Range	:	5 - 50µl	Serial No	:	PE551490
Least Count	:	0.5µl	Identification No.	:	--
Make	:	Erba	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 : 5 µl **No. of Measurements :** 10

4.95	4.98	4.93	4.97
4.99	5.01	5.03	5.05
5.00	5.01		

Mean Value : 4.99 µl

			Error Limits(±)	
Systematic Error :	-0.01	µl	0.13	µl
Systematic Error :	-0.22	%	2.50	%
Random Error :	0.04	µl	0.08	µl
Random Error :	0.73	%	1.50	%

Measurement Uncertainty : ± 0.36 µl

Calibrated by :
L.SALAMON
(Calibration Engineer)

EQUATION CALIBRATION SERVICES CHENNAI 600 032

Authorised by:
V. RAJKARTHICK
(QM)

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CALIBRATION CERTIFICATE

CRF No.	:	EQN/CRF/2209032
ULR No.	:	CC276022000012667F

MECHANICAL CALIBRATION

(Volume)

Calibration Results

2. Middle Volume : 25 µl **No. of Measurements :** 10

25.03	25.01	25.03	25.02
25.02	25.07	25.04	25.01
25.05	25.09		

Mean Value :	25.04	µl

			Error Limits(±)	
Systematic Error :	0.04	µl	0.20	µl
Systematic Error :	0.16	%	1.00	%
Random Error :	0.03	µl	0.10	µl
Random Error :	0.11	%	0.50	%

Measurement Uncertainty :	±	0.36	µl

3. Nominal Volume : 50 µl **No. of Measurements :** 10

50.13	50.11	50.16	50.14
50.17	50.20	50.20	50.16
50.14	50.18		

Mean Value :	50.16	µl

			Error Limits(±)	
Systematic Error :	0.16	µl	0.50	µl
Systematic Error :	0.32	%	1.00	%
Random Error :	0.03	µl	0.20	µl
Random Error :	0.06	%	0.40	%

Measurement Uncertainty :	±	0.36	µl

Remarks

1. The reported Expanded Uncertainty is calculated at 95.45 % C.L with coverage factor $k=2$
2. The Above Results are within the maximum permisable Error

End of certificate

Calibrated by:
L.SALAMON
(Calibration Engineer)

EQUATION CALIBRATION SERVICES CHENNAI 600 032

Authorised by:
V. RAJKARTHICK
(QM)

EQUATION CALIBRATION SERVICES PRIVATE LIMITED
No. 5 / 3A, Poomagal Third Street, Ekkattuthangal, Ambal Nagar, Chennai - 32, Tamilnadu, India, Tel: 91-9962084985, Email: enquiry@eqnservices.com, Web: www.eqnservices.com

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CALIBRATION CERTIFICATE

EQN/FT/7.8/01					Page 1 of 2
CRF No.	:	EQN/CRF/2209032	Date of Calibration	:	09-Sep-22
Certificate No	:	2022-23/EQN/2209032-11	Recom. Due Date	:	08-Sep-23
ULR No.	:	CC276022000012668F			
Customer Details	:		Calibrated at	:	Lab
M/s. SRI KRISHNA CLINICAL LABORATORY			Date of Receipt	:	09-Sep-22
No : 2 Karungalpatti, 2nd street, Gugai,			Cond. On Receipt	:	Satisfactory
Salem- 636 006.			Date of Issue	:	12-Sep-22
Details of UUC :					
Description	:	**Micropipette**	Model No.	:	--
Range	:	10 - 100 µl	Serial No	:	YE202AMO108819
Least Count	:	1µl	Identification No.	:	--
Make	:	Dragon Lab	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

9.98	10.01	10.04	10.00
9.96	9.99	10.02	10.02
9.97	10.03		

Mean Value : 10.0 µl

			Error Limits(±)	
Systematic Error :	0.00	µl	0.12	µl
Systematic Error :	0.02	%	1.20	%
Random Error :	0.03	µl	0.08	µl
Random Error :	0.27	%	0.80	%

Measurement Uncertainty : ± 0.36 µl

Calibrated by :
L.SALAMON
(Calibration Engineer)

EQUATION CALIBRATION SERVICES CHENNAI 600 032

Authorised by:
V. RAJKARTHICK
(QM)

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CALIBRATION CERTIFICATE

CRF No.	:	EQN/CRF/2209032	Page 2 of 2
ULR No.	:	CC276022000012668F	

MECHANICAL CALIBRATION

(Volume)

Calibration Results

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

50.12	50.16	50.14	50.18
50.21	50.19	50.16	50.14
50.13	50.20		

Mean Value : 50.2 µl

			Error Limits(±)	
Systematic Error :	0.17	µl	0.50	µl
Systematic Error :	0.33	%	1.00	%
Random Error :	0.03	µl	0.20	µl
Random Error :	0.06	%	0.40	%

Measurement Uncertainty : ± 0.36 µl

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

100.31	100.27	100.23	100.27
100.30	100.33	100.35	100.26
100.32	100.32		

Mean Value : 100.3 µl

			Error Limits(±)	
Systematic Error :	0.30	µl	0.80	µl
Systematic Error :	0.30	%	0.80	%
Random Error :	0.04	µl	0.30	µl
Random Error :	0.04	%	0.30	%

Measurement Uncertainty : ± 0.36 µl

Remarks

1. The reported Expanded Uncertainty is calculated at 95.45 % C.L with coverage factor $k=2$
2. The Above Results are within the maximum permisable Error

End of certificate

Calibrated by :
L.SALAMON
(Calibration Engineer)

EQUATION CALIBRATION SERVICES CHENNAI 600 032

Authorised by:
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CALIBRATION CERTIFICATE

EQN/FT/7.8/01					Page 1 of 1
CRF No.	:	EQN/CRF/2209032	Date of Calibration	:	09-Sep-22
Certificate No	:	2022-23/EQN/2209032-12	Recom. Due Date	:	08-Sep-23
ULR No.	:	CC276022000012669F			

Customer Details

M/s. SRI KRISHNA CLINICAL LABORATORY
No : 2 Karungalpatti, 2nd street, Gugai,
Salem- 636 006.

Calibrated at	:	Lab
Date of Receipt	:	09-Sep-22
Cond. On Receipt	:	Satisfactory
Date of Issue	:	12-Sep-22

Details of UUC :

Description	:	**Micropipette**	Model No.	:	---
Range	:	100 - 1000µl	Serial No	:	PG554691
Least Count	:	5µl	Identification No.	:	--
Make	:	Erba	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 : 100 µl **No. of Measurements : 10**

100.04	100.12	99.99	100.06
100.10	100.12	100.07	100.15
100.11	100.02		

Mean Value : 100.08 µl

			Error Limits(±)	
Systematic Error :	0.08	µl	0.80	µl
Systematic Error :	0.08	%	0.80	%
Random Error :	0.05	µl	0.30	µl
Random Error :	0.05	%	0.30	%

Measurement Uncertainty : ± 0.36 µl

Calibrated by :
L.SALAMON
(Calibration Engineer)

EQUATION CALIBRATION SERVICES CHENNAI 600 032

Authorised by:
V. RAJKARTHICK
(QM)

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CALIBRATION CERTIFICATE

CRF No. : EQN/CRF/2209032
ULR No. : CC276022000012669F

MECHANICAL CALIBRATION

(Volume)

Calibration Results

2. Middle Volume : 500 µl No. of Measurements : 10

499.17	499.40	499.24	499.09
499.31	499.34	499.44	499.32
499.25	499.30		

Mean Value : 499.28 µl

			Error Limits(±)	
Systematic Error :	-0.72	µl	4.00	µl
Systematic Error :	-0.14	%	0.80	%
Random Error :	0.10	µl	1.50	µl
Random Error :	0.02	%	0.30	%
Measurement Uncertainty :		±	0.36 µl	

3. Nominal Volume : 1000 µl No. of Measurements : 10

1000.30	1000.07	1000.15	999.89
1000.00	999.76	1000.02	1000.10
1000.17	1000.03		

Mean Value : 1000.05 µl

			Error Limits(±)	
Systematic Error :	0.05	µl	8.00	µl
Systematic Error :	0.01	%	0.80	%
Random Error :	0.15	µl	3.00	µl
Random Error :	0.02	%	0.30	%
Measurement Uncertainty :		±	0.36µl	

Remarks

1. The reported Expanded Uncertainty is calculated at 95.45 % C.L with coverage factor $k = 2$
2. The Above Results are within the maximum permissable Error

End of certificate

Calibrated by :
L.SALAMON
(Calibration Engineer)

EQUATION CALIBRATION SERVICES CHENNAI 600 032

Authorised by:
V. RAJKARTHICK
(QM)