





Calibration Certificate

Certificate Number : SBS/CL/24/04780 **Pages** : 01 of 01 **ULR Number** : CC340424000004780F Issue Date : 11-May-24

Customer Name : M/s.Moris Mathias Hospital, SRF Number : SRF/24/00107-0016

Address : 355,K.P.Road,Nagercoil-629001. **Date of Calibration** : 10-May-24 Recommended Due Date: 9-May-25

> Calibrated at : Mechanical Lab Calibrated By : A.Rajalakshmi

Device Under Calibration

: Micro Pipette Nomenclature Range : 20 to 200 µl

Make : Micropet Resolution : 1 µl

Model Accuracy (±) : As per Manual **ID Number** : Variable Type Serial Number Customer Ref. : Email

Location : Laboratory **Date of Received** : 10-May-24 Procedure Number : SBS/CP/ML/08 : SATISFACTORY Condition of Receipt

Environmental Conditions

22.9 °C Temperature **Relative Humidity** 54 %RH

Air Pressure 1006.5 hpa

Standards Used

Serial / ID Number Nomenclature Certificate Number Validity 7-Dec-24

TVCSPL23/12/1467-01 Electronic Weighing Balance 15112918

Calibration Results

Mechanical - Volume

	Result of Calibration in μl											
Nominal Value		Obs	erved Read	lings		Mean Value	Systematic Error	Random Error	Uncertainty (±)			
20	19.86	19.87	19.89	19.91	19.93	19.91	-0.09	0.05	0.47			
20	19.95	19.97	19.99	19.86	19.84	19.91	-0.03	0.03	0.47			
100	99.86	99.86	99.89	99.91	99.93	99.90	-0.10	0.04	0.47			
100	99.95	99.97	99.89	99.91	99.86	99.90	-0.10	0.04	0.47			
200	199.89	199.86	199.89	199.88	199.84	199.90	-0.10	0.04	0.47			
200	199.87	199.91	199.93	199.95	199.97	155.50	-0.10	0.04	0.47			

Remarks

- 1. The Reported Uncertainty(U) is based on a Standard Uncertainty Multiplied by a Coverage factor K=2, Providing a Confidence level of approximately 95.45% The Uncertainty Evaluation has been Carried out in accordance with GUM guidelines
- 2. This Certificate is issued Provides Traceability of measurements to recognized National/International Standards.

 3. Units of Measurements the Certificate may not be reproduced, Except infull, without prior return approval of sunshine Biomedical solution.
- 4.calibration Results related only to Equipment Reported are Valid at the Time of and under stated Conditions of measurements. 5.Calibration Points and Parameters are as per the Customer Request.National/International Standard ISO 8655-6:2022.
- 6.Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

Website Scope

T. Saranya T.Saranya

Prepared by



****End of the Certificate****

C. Sivabas C.SIVABALAN Authorised by **Quality Manager**







Calibration Certificate

Certificate Number: SBS/CL/24/04781 **ULR Number** : CC340424000004781F

Issue Date

: 01 of 01 : 11-May-24

Customer Name Address

: M/s.Moris Mathias Hospital, : 355,K.P.Road,Nagercoil-629001.

SRF Number Date of Calibration : SRF/24/00107-0017

Recommended Due Date

: 10-May-24 : 9-May-25

Calibrated at

: Mechanical lab

Calibrated By

: A.Rajalakshmi

Device Under Calibration

Nomenclature Make

Location

: Micro Pipette

Range

: 1000 µl

Model

: Micropet

Resolution

ID Number

Accuracy (±)

: As per Manual ; Fixed

Serial Number

: Laboratory

Type Customer Ref.

: Email

Date of Received

: 10-May-24 : SATISFACTORY

Condition of Receipt **Environmental Conditions**

Temperature Air Pressure

22.6 °C 1006.5 hpa Relative Humidity

54 %RH

Standards Used

Serial / ID Number

Certificate Number

Validity

Nomenclature Electronic Weighing Balance

Procedure Number : SBS/CP/ML/08

15112918

TVCSPL23/12/1467-01

7-Dec-24

Calibration Results

Mechanical - Volume

			Res	ult of Calil	bration in µ	ď			
Nominal Value		Obs	served Read	lings		Mean Value	Systematic Error	Random Error	Uncertainty (±)
1000	999.86	999.89	999.91	999.89	999.93	000.05	2.05		Set Med
	999.97	999.99	1000.10	999.98	999.89	999.95	-0.05	0.07	0.47

- 1. The Reported Uncertainty(U) is based on a Standard Uncertainty Multiplied by a Coverage factor K=2, Providing a Confidence level of approximately 95.45% The Uncertainty Evaluation has been Carried out in accordance with GUM guidelines
- 2.This Certificate is issued Provides Traceability of measurements to recognized National/International Standards.
- 2. This Setting are is issued provides indecating or intestinents to recognized vacconalisation and standards.

 3. Units of Measurements the Certificate may not be reproduced, Except infull, without prior return approval of sunshine Biomedical solution.

 4. calibration Results related only to Equipment Reported are Valid at the Time of and under stated Conditions of measurements.

 5. Calibration Points and Parameters are as per the Customer Request. National/International Standard ISO 8655-6:2022.

Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

T. Saranya Prepared by

BIOMEDICA Chennai 600 032



****End of the Certificate****

C- givehals C.Sivabalan Authorised by Quality Manager



No:68, First Floor, Poomagal Main Road, Ekkattuthangal, Chennai - 600 032, Tel: 044 - 2225 2087, E-Mail: calibration@sunshinebiomedical.com, Website: www.sunshinebiomedical.com



Calibration Certificate

Certificate Number: SBS/CL/24/04782 **Pages** : 01 of 01 **ULR Number** : CC340424000004782F **Issue Date** : 11-May-24

Customer Name : M/s.Moris Mathias Hospital, SRF Number : SRF/24/00107-0018

: 355,K.P.Road,Nagercoil-629001. Address Date of Calibration : 10-May-24 Recommended Due Date : 9-May-25

Calibrated at : Mechanical lab Calibrated By : A.Rajalakshmi

Device Under Calibration

Nomenclature : Micro Pipette Range : 10 µl

Make : Dragon Lab Resolution

Model Accuracy (±) : As per Manual **ID Number** Type : Fixed

Serial Number : YE175A30091205 Customer Ref. : Email Location : Laboratory **Date of Received** : 10-May-24 Procedure Number : SBS/CP/ML/08 : SATISFACTORY Condition of Receipt

Environmental Conditions

Relative Humidity Temperature 21.5 °C 45 %RH

Air Pressure 1006.9 hpa

Standards Used

Nomenclature Serial / ID Number Certificate Number Validity TVCSPL23/12/1467-01 15112918 Electronic Weighing Balance 7-Dec-24

Calibration Results

Mechanical - Volume

	Result of Calibration in μl										
Nominal Value		Obs	erved Read	lings		Mean Value	Systematic Error	Random Error	Uncertainty (±)		
10	9.86	9.88	9.91	9.93	9.95	9.90	-0.10	0.04	0.47		
10	9.95	9.97	9.86	9.87	9.86	5.50	3.10	0.04	0.47		

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- Uncertainty Evaluation has been Carried out in accordance with GUM guidelines
 2.This Certificate is issued Provides Traceability of measurements to recognized National/International Standards.
- 3.Units of Measurements the Certificate may not be reproduced, Except infull, without prior return approval of sunshine Biomedical solution.

 4.calibration Results related only to Equipment Reported are Valid at the Time of and under stated Conditions of measurements.
- 5.Calibration Points and Parameters are as per the Customer Request.National/International Standard ISO 8655-6:2022.
 6.Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

 1. Description Control of the Customer Request.National/International Standard ISO 8655-6:2022.

Chennai

Prepared by

Scope

****End of the Certificate****

Website

Authorised by Quality Manager







Calibrated By

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Certificate Number : SBS/CL/24/04783 Pages : 01 of 01 **ULR Number** : CC340424000004783F Issue Date : 1-Jun-24

Customer Name : M/s.Moris Mathias Hospital, SRF Number : SRF/24/00107-0019

Address : 355,K.P.Road,Nagercoil-629001. Date of Calibration : 10-May-24

> **Recommended Due Date** : 9-May-25 : Mechanical lab Calibrated at

> > : A.Rajalakshmi

45 %RH

Device Under Calibration

Range Nomenclature : Micro Pipette : 20 µl

Resolution Make : Biohit

: As per Manual Model Accuracy (±) ID Number Type : Fixed

Customer Ref. Serial Number : 12547303 : Email Location : Laboratory Date of Received : 10-May-24 : SBS/CP/ML/08 Condition of Receipt : SATISFACTORY **Procedure Number**

Environmental Conditions

Relative Humidity Temperature 21.5 °C

Air Pressure 1006.9 hpa

Standards Used

Serial / ID Number Certificate Number Validity Nomenclature 15112918 TVCSPL23/12/1467-02 Electronic Weighing Balance 7-Dec-24

Calibration Results

Mechanical - Volume Z Factor: 1.00316

Result of Calibration in µl Systematic Random Uncertainty Mean Observed Readings Nominal Value Error Error 19.86 19.87 19.86 19.89 19.91 -0.09 0.05 0.47 19.92 20 19.93 19.95 19.97 19.99 19.93

Remarks

- 1.The Reported Uncertainty(U) is based on a Standard Uncertainty Multiplied by a Coverage factor K=2,Providing a Confidence level of approximately 95.45% The Uncertainty Evaluation has been Carried out in accordance with GUM guidelines
- 2. This Certificate is issued Provides Traceability of measurements to recognized National/International Standards.

 3. Units of Measurements the Certificate may not be reproduced, Except infull, without prior return approval of sunshine Biomedical solution.
- 4.calibration Results related only to Equipment Reported are Valid at the Time of and under stated Conditions of measurements.

 5.Calibration Points and Parameters are as per the Customer Request.National/International Standard ISO 8655-6:2022.

 6.Calibration Liquid Used: Distilled or Deionized water conforming Grade 3 as specified in ISO 3696.

7. The Certificate was Amended on 01-06-2024 for change in traceability certificate number printed as a mistake.

N.Aruna

Prepared by





C-Divahal Authorised by **Quality Manager**



No:68, First Floor, Poomagal Main Road, Ekkattuthangal, Chennai - 600 032, Tel: 044 - 2225 2087, E-Mail: calibration@sunshinebiomedical.com, Website: www.sunshinebiomedical.com.



Calibration Certificate

Certificate Number: SBS/CL/24/04810 : 01 of 01 Pages **ULR Number** : CC340424000004810F Issue Date : 23-May-24

Customer Name : M/s.Moris Mathias Hospital, **SRF Number** : SRF/24/00107-0020

Address : 355,K.P.Road,Nagercoil-629001. Date of Calibration : 21-May-24 Recommended Due Date: 20-May-25

Calibrated at : Mechanical Lab Calibrated By : M.Fariya Al Rafiya

Device Under Calibration

: Micro Pipette Range : 10 to 100 µl Make : Dragon Lab

Resolution : 1 µl Model Accuracy (±) : As per Manual **ID Number**

Type : Single-Variable Serial Number : ye198al0497701 Customer Ref. : Email Location : Laboratory **Date of Received** : 21-May-24 Procedure Number : SBS/CP/ML/08 Condition of Receipt : SATISFACTORY

Environmental Conditions

Temperature 20.2 °C **Relative Humidity** 54 %RH

Air Pressure 1006.5 hpa

Standards Used

Nomenclature Serial / ID Number Certificate Number Validity Electronic Weighing Balance 15112918 TVCSPL23/12/1467-02 7-Dec-24

Calibration Results

Mechanical - Volume

_	Result of Calibration in μl											
	Nominal Value		Obs	served Read	ings		Mean Value	Systematic Error	Random Error	Uncertainty (±)		
	10	9.86	9.89	9.88	9.91	9.87	0.00	0.12	0.03	0.47		
	10	9.86	9.88	9.84	9.87	9.90	9.88	-0.12	0.02	0.47		
	50	49.86	49.87	49.86	49.87	49.88	49.87	0.13	0.01	0.47		
	30	49.90	49.86	49.87	49.88	49.86	49.87	-0.13	0.01	0.47		
	100	99.86	99.84	99.82	99.87	99.91	99.88	0.43	0.04	0.47		
	100	99.93	99.95	99.87	99.84	99.86		-0.12		0.47		

^{1.}The Reported Uncertainty(U) is based on a Standard Uncertainty Multiplied by a Coverage factor K=2,Providing a Confidence level of approximately 95.45% The Uncertainty Evaluation has been Carried out in accordance with GUM guidelines

2. This Certificate is issued Provides Traceability of measurements to recognized National/International Standards.

3. Units of Measurements the Certificate may not be reproduced, Except infull, without prior return approval of sunshine Biomedical solution.

4.calibration Results related only to Equipment Reported are Valid at the Time of and under stated Conditions of measurements. 5.Calibration Points and Parameters are as per the Customer Request.National/International Standard - ISO 8655-6:2022.

600 032

6. Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

M. Fariya Al Bafiya

Scope Website

End of the Certificate****

C.Sivabalan

Authorised by **Quality Manager**







Calibration Certificate

Certificate Number : SBS/CL/24/04811 Pages : 01 of 01 **ULR Number** : CC340424000004811F Issue Date : 23-May-24

Customer Name : M/s.Moris Mathias Hospital, SRF Number : SRF/24/00107-0021

Address : 355,K.P.Road,Nagercoil-629001. Date of Calibration : 21-May-24 Recommended Due Date: 20-May-25 Calibrated at : Mechanical Lab Calibrated By : M.Fariya Al Rafiya

Device Under Calibration

Nomenclature : Micro Pipette Range : 100 to 1000 µl Make : Sartorius Resolution : 5 µl Model : Biohit Accuracy (±) : As per Manual **ID Number** Type : Single-Variable Serial Number : 4541900632 Customer Ref. : Email Location : Laboratory **Procedure Number**

Date of Received : 21-May-24 : SBS/CP/ML/08 Condition of Receipt : SATISFACTORY

Environmental Conditions

Temperature 21.2 °C Relative Humidity 51 %RH Air Pressure 1006.5 hpa

Standards Used

Nomenclature Serial / ID Number

Certificate Number Validity Electronic Weighing Balance 15112918 TVCSPL23/12/1467-02 7-Dec-24

Calibration Results

Mechanical - Volume

			Res	ult of Calib	oration in	μl			
Nominal Value		Obse	rved Readi	ngs		Mean Value	Systematic Error	Random Error	Uncertainty (±)
100	99.86	99.87	99.84	99.85	99.86		"		, , ,
100	99.89	99.91	99.93	99.95	99.97	99.89	-0.11	0.04	0.47
500	499.86	499.89	499.91	499.93	499.95			0.03	
300	499.87	499.89	499.91	499.86	499.87	499.89	-0.11		0.47
1000	999.89	999.86	999.84	999.87	999.84	999.87		0.02	
	999.89	999.84	999.87	999.86	999.89		-0.13		0.47
Remarks			, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,						

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2.This Certificate is issued Provides Traceability of measurements to recognized National/International Standards.

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Chennai 600 032

3. Units of Measurements the Certificate may not be reproduced, Except infull, without prior return approval of sunshine Biomedical solution.
4. Calibration Results related only to Equipment Reported are Valid at the Time of and under stated Conditions of measurements.
5. Calibration Points and Parameters are as per the Customer Request. National/International Standard - ISO 8655-6:2022.

6.Calibration Liquid Used: Distilled or Deionized water conforming Grade3 as specified in ISO 3696.

M.Fariya Al Rafiyaha



Authorised by Quality Manager





No:68, First Floor, Poomagal Main Road, Ekkattuthangal, Chennai - 600 032, Tel: 044 - 2225 2087, E-Mail: calibration@sunshinebiomedical.com, Website: www.sunshinebiomedical.com

Calibration Certificate

SBS/F/8.2/01

Certificate Number: SBS/CL/24/04812 **ULR Number** Pages : CC340424000004812F : 01 of 01 Issue Date : 23-May-24 **Customer Name** : M/s.Moris Mathias Hospital, Address SRF Number : 355,K.P.Road,Nagercoil-629001. : SRF/24/00107-0022 **Date of Calibration** : 21-May-24 Recommended Due Date : 20-May-25 Calibrated at : Mechanical Lab Calibrated By : M.Fariya Al Rafiya

Device Under Calibration

Nomenclature : Micro Pipette

Make Model **ID Number**

Serial Number : 12648969 Location : Laboratory Procedure Number : SBS/CP/ML/08 Range Resolution

Accuracy (±) Type Customer Ref.

: Single-Fixed : Email Date of Received : 21-May-24 Condition of Receipt : SATISFACTORY

Environmental Conditions

Temperature 21.5 °C Air Pressure 1006.9 hpa

Relative Humidity

45 %RH

: As per Manual

: 100 µl

Standards Used

Nomenclature Electronic Weighing Balance

Serial / ID Number 15112918

Certificate Number TVCSPL23/12/1467-02

Validity 7-Dec-24

Calibration Results

Mechanical - Volume

200			Res	ult of Calib	ration in µ	l			
Nominal Value		Obs	served Read	lings		Mean Value	Systematic Error	Random Error	Uncertaint
100	99.89	99.86	99.88	99.87	99.91				\-/
1	99.93	99.91	99.89	99.86	99.87	99.89	-0.11	0.02	0.47

Remarks

- 1.The Reported Uncertainty(U) is based on a Standard Uncertainty Multiplied by a Coverage factor K=2,Providing a Confidence level of approximately 95.45% The 1.The Reported Uncertainty(U) is based on a Standard Uncertainty Multiplied by a Coverage factor K=2,Providing a Confidence level of approunce Uncertainty Evaluation has been Carried out in accordance with GUM guidelines

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 5.Calibration Liquid Used: Distilled or Deionezed water conforming Grade3 as specified in ISO 3696.

M.Fariya Al Rafiya Prepared by

Chennai 600 032

Website

End of the Certificate****

C.Sivabalan Authorised by **Quality Manager**







CALIBRATION CERTIFICATE

Customer Details:

Morris Mathias Hospital,

No 355, KP Road, Nagercoil,

Tamilnadu

629001

Certificate No: 6067

Received Date: 25-May-24

Calibration Date: 27-May-24

Recom.Due Date: 27-May-25

Cert. Issued Date: 29-May-24

ULR No: CC315624000000683F

The Chennai Calibration Centre follows the norms of ISO/IEC 17025:2017. This is in complaince with National/International Standards. The piston operated device calibration carried out with respect to standard as per ISO 8655-6:2002. Unit Under Calibration:

Description:	Micropipette	Serial No:	14627916
Make:	Biohit	ID no:	Nil
Model:	Nil	Calibration Points(µI):	5,25,50
Volume Range(µI):	5-50	Condition on Receipt:	Functional
Least Count(µI):	0.5	Accuracy(μI)±:	As per Manual
Location:	Laboratory	No of Channel:	Single-Variable Volume

Environmental conditions:

Air Temperature(*C):	24.8	Relative Humidity(%):	53.5	Air Pressure(hPa):	995.2

Standard's Traceability Details:

SI.No:	Equipment	SI.No	Calibrating Agency	Traceability No	Valid upto
1	Dig.Micro Balance(Used for 1µl to 100µl)	18413362	TVCSPL,Chennai	TVCSPL 23/10/1255-02	19-0ct-24
2	Analytical Balance(Used for 100µl to 10ml)	34893056	TVCSPL,Chennai	TVCSPL 23/10/1255-01	19-0ct-24

Calibration Results (Mechanical-Volume):

Laboratory Procedure No:CCC-WI-01

SI.No:	Device Readings(µI)	Calculated Mean Volume at 27 °C(µI)	Error(µI)	Uncertainty(±µI)
1	5	5.01	-0.01	0.05
2	25	24.99	0.01	0.30
3	50	50.21	-0.21	0.30

As per ISO 8655-2:2002 systematic error, Random error and Error limits:

SI.No:	Device Readings(µI)	Calculated Mean Volume at 27 °C(µI)	Systematic Error(µI)	Syst.Error Limits(±µI)	Random Error(µI)	Random Error
1	5	5.01	0.01	0.12	0.01	0.07
2	25	24.99	-0.01	0.50	0.06	0.20
3	50	50.21	0.21	0.50	0.12	0.20

Remarks:

- *Calculated Mean Value given is the average of 10 measurements.
- *Equipment used for calibration were calibrated & Traceable to National and International standard *The reported Expanded Uncertainty is calculated at 95.45 % C.L. with coverage factor k=2
- *This calibration certificate is valid for scientific & industrial purpose only

 *SRF No:607-1 * Certificate format No:CCC-FR-05
- *This report refers only to particular item submitted for calibration
- *Calibrated at In-House Lab

 * The report shall not be reproduced except in full without approval of the laboratory.

Status: PASS (According to ISO 8655-2:2002 permissible limits)

Calibrated by

Subashchandrabose Calibration Engineer

End of Certificate



Certificate





#18, D.K. Nagar Main Road, | 93822 93522 Maduravoyal, Chennai - 600 095. 91235 62922

www.chennaicalibration.com