

**MEASURE TECHNO LAB**  
**2, B.T. ROAD (JAYANTI CINEMA COMPLEX)**  
**BARRACKPORE, KOLKATA - 700120, W.B.**

Form No. - MTL/22/2006

**CALIBRATION CERTIFICATE OF  
 MICRO PIPETTE**



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CALIBRATION CERTIFICATE NO.: MTL / MMC&H(HIV) / R06 / 02 - 22

ULR - CC254522000006780F

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1.0 Service Request No.: MTL / 23B / 02 / 21 - 22

1.1 Issued to: In - Charge HIV Testing Laboratory,  
 Department of Microbiology,  
 Midnapore Medical College & Hospital,  
 Paschim Medinipur, West Bengal – 721101.

1.2 Description & Identification of item to be Calibrated:

a) Name:	Micro Pipette	b) Code No.:	MMC / MICRO / SERO / MP - 02
c) Sl. No.:	17314013	d) Make:	Microlit
e) Model / Type:	N.S.	f) Range:	100 µl (Fixed)
g) Sensor:	N.A.	h) Resolution:	N.A.
i) End User:	Serology	j) Accuracy:	N.S.
k) Calibration done at:	On Site / √ In House		

1.3 Date of receipt of item : 23-02-22

1.4 Physical Condition of DUC : OK

1.5 Date of calibration : 24-02-22

1.6 Recommended date of next calibration : 24-02-23

1.7 Date of Issue : 26-02-22

1.8 Environmental Conditions During Calibration:

Temperature:	23 °C ± 2 °C
Humidity:	50 % RH ± 10 % RH
Pressure:	1013.3 mbar

1.9 Method of Calibration: SOP / MASS / 02 ( As Per ISO : 8655 – 6 : 2002)

2.0 Traceability :

a) Standards used for calibration are traceable to National standards through NABL Accredited Laboratory.

b) The following standards / Equipment have been used.

- i) Weight Box (E1) Cal. Certificate No. WI / May / 19 / 010 (WEIGH INDIA, New Delhi) (Cal. Date: 17/05/19, Due Date: 17/05/22)
- ii) Data Acquisition Switch Unit Cal. Certificate No. JRPM - CCTR - ET - 2021 - 1227 (JRPM, Chennai) (Cal. Date: 26/08/21, Due Date: 25/08/22)
- iii) RTD (PT - 100) Cal. Certificate No. TL / 021 / 1091.2.1 (TEMPSSENS, Udaipur) (Cal. Date: 25/10/21, Due Date: 24/10/22)

2.1 Result :

Mechanical Calibration

Sl. No.	Parameter/ Range	Nominal Value µl	Mass of Water mg	Volume of Water at 20 °C µl	Error µl	Measurement Expanded Uncertainty ± µl
1.	Volume 100 µl (Fixed)	100	100.0626	100.4629	0.4629	0.39

Remarks: i) Cubical Expansion co - efficient of pipette material taken as  $10^{-5} \mu\text{l} / ^\circ\text{k}$ .

ii) This result has an expanded uncertainty with a coverage factor  $k=2$  at approximately 95% confidence level.

iii) The calibration certificate issued for this instrument is to be used for scientific or industrial purposes only.

DUC - Device Under Calibration

N.S. - Not Specified

N.A. - Not Applicable

Opinions and Interpretations			
Calibrated	√	Accepted / Valid for use	
Limited Use		Rejected / Out of use	

Calibrated by:  
 Measure Techno Lab  
 K. Baran  
 Kolkata  
 Testing Engineer

WB  
 26/02/22

Checked / Approved by:

Quality & Technical Manager

S. Pandey