

Issued to,

M/s: Lupin Diagnostics Limited - Laboratory  
Kiran Plaza, 84, District Centre,  
Chandrasekharpur, Bhubaneswar - 751016,  
Odisha (Orissa), India.

Form No.: M&P/LAB/FM/41  
Cert. No. M&P/LAB/LDL-B/01/MP-01/24-25  
Issue Date: 2-Aug-2024  
ULR : CC392324000001168F

### CALIBRATION CERTIFICATE

Date of Calibration	Calibration Due on	Page No.
31-Jul-2024	30-Jul-2025	1 of 1

Service Request / Order No. : ---  
Location of Calibration : At Laboratory  
Date of Receipt : 30.07.2024  
Description of Instrument : **Micropipette**  
Make : MICROLIT (SI. No. 23300656)  
Model /Type : Variable  
Range : (20-200)  $\mu$ l  
L/c. : 0.2  $\mu$ l  
Identification No. : LDL / SLB / LAB / PIPT / 01  
Method of Calibration : M&P/LAB/SOP/01/MECH/13 (Gravimetric Method)

#### Details of Standard Equipment used for Calibration :

Description	Traceability Certificate No. & Calibration Date	Valid upto	Calibration Agency
Electronic Balance (SI.No.14252668)	M&P/LAB/INT/05/EB-03/23-24, Dated: 23.08.2023	22.08.2024	Measure & Precision Engineers
Digital Thermometer with Sensor (SI.No.1802250)	TSC/23-24/19715-2, Dated:02.03.2024	01.03.2025	Transcal

Traceability: Standard used for calibration traceable to national standards through NABL accredited laboratory

Environmental Condition : Temperature: (25  $\pm$  2)  $^{\circ}$ C Humidity: (50  $\pm$  10)%RH

### CALIBRATION RESULTS

Sl. No.	Value Set on DUC*	Average Reading Observed through Ref. Std. at 27 $^{\circ}$ C (Avg. of Ten Readings)	Systematic Error	Random Error	Expanded Uncertainty
	$\mu$ l	$\mu$ l	$\mu$ l	$\mu$ l	( $\pm$ ) $\mu$ l
1	20.0	19.71	0.29	0.06	2.62
2	100.0	101.50	-1.50		
3	200.0	202.30	-2.30		

\*Measurement uncertainty at 95% of confidence level for the maximum reported range & at a coverage factor of k = 2

**Remarks:** The above DUC has been calibrated over its above range & the readings obtained are tabulated above.

- Note:**
- This certificate refers only to the particular item submitted for calibration.
  - Result reported are valid at the time of and under stated condition of measurement.
  - Next calibration due date is given as requested by the customer.
  - DUC\*= Device Under Calibration.
  - Physical Status of the DUC is found OK.
  - This certificate shall not be reproduced except in full with out permission of head of laboratory.
  - Random Error Calculation has been done for the Maximum reported range.

Calibrated By:

S.Mondal  
(Calibration Engineer)



Approved By:

S.C. Das  
(Head of Laboratory)

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Date of Calibration	Calibration Due on	Page No.
31-Jul-2024	30-Jul-2025	1 of 1

Service Request / Order No. : ---  
Location of Calibration : At Laboratory  
Date of Receipt : 30.07.2024  
Description of Instrument : **Micropipette**  
Make : MICROLIT (SI. No. 23300600)  
Model /Type : Variable  
Range : (100-1000)  $\mu$ l  
L/c. : 1  $\mu$ l  
Identification No. : LDL / SLB / LAB / PIPT / 02  
Method of Calibration : M&P/LAB/SOP/01/MECH/13 (Gravimetric Method)

#### Details of Standard Equipment used for Calibration :

Description	Traceability Certificate No. & Calibration Date	Valid upto	Calibration Agency
Analytical Balance (Sr.No.19417626)	M&P/LAB/INT/08/AB-01/23-24, Dated: 24.08.2023	23.08.2024	Measure & Precision Engineers
Digital Thermometer with Sensor (SI.No.1802250)	TSC/23-24/19715-2, Dated:02.03.2024	01.03.2025	Transcal

Traceability: Standard used for calibration traceable to national standards through NABL accredited laboratory

Environmental Condition : Temperature:  $(25 \pm 2) ^\circ\text{C}$  Humidity:  $(50 \pm 10)\% \text{RH}$

### CALIBRATION RESULTS

Sl. No.	Value Set on DUC*	Average Reading Observed through Ref. Std. at 27°C (Avg. of Ten Readings)	Systematic Error	Random Error	Expanded Uncertainty
	$\mu$ l	$\mu$ l	$\mu$ l	$\mu$ l	( $\pm$ ) $\mu$ l
1	100.0	100.86	-0.86	0.106	2.62
2	500.0	501.77	-1.77		
3	1000.0	1004.08	-4.08		

\*Measurement uncertainty at 95% of confidence level for the maximum reported range & at a coverage factor of  $k = 2$

**Remarks:** The above DUC has been calibrated over its above range & the readings obtained are tabulated above.

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