

CALIBRATION CERTIFICATE

SUBJECT: CALIBRATION OF MICROPIPETTE	CERTIFICATE NO.: ML/MCH/1381/03/2023-24	
	Certificate Issue Date 23/09/2023	Page 1 of 1

1. **Scope**
- 1.1 Service Request Details Calibration
 1.1.1 Service Request No. ML/1381/23-24
 1.1.2 Service Request Finalized On 18/09/2023
 1.1.3 Unique Lab Report Number (ULR No.) CC266423000027467F
 1.1.4 Discipline / Group Mechanical / Volume
 1.1.5 Name & Address of Organization NOBEL MICROPATH LABORATORY
 G3, Ground floor, Infinity Tower, near Railway Station, Surat, Gujarat, India, 395003.



1.2 **Item Details**

1.2.1 Condition of the Item Working

1.2.2 Nomenclature	Micropipette		
Manufacturer	Thermo Scientific	Model No.	---
ID No.	TW00558	Sr.No.	TW00558
Range	2 to 20 µl	Type	Analog (Variable)
Least Count	0.02 µl	Accuracy	---
Department	---	Location	---

1.3 Item Received On Dt. 20/09/2023

1.4 **Details of Test Equipments Used**

Instrument Name	UID No.	Certificate No.	Make	Due Date
Micro Balance	ML/DWB/009	NC-520	RADWAG	09/10/2023

1.4.1 Operating Procedures Used: ML/SOP/M/WWV/003

1.4.2 Reference Standard: ISO-TR 20461

1.5 Date of Calibration: 21-September-2023

1.6 Recommended Due Date of Calibration: 20-September-2024

1.7 **OBSERVATIONS:**

1.7.1 Laboratory Ambient: Temperature: 25.4 °C (22.5±4.5) Humidity: 51.3 %RH (50±10) Pressure: 1001.2 hPa (950±100)
 1.7.2 Parameter: Volume (µl) Measured Value Converted @27°C

Sr. No.	Measured Value on Master (A)	Set Value on IUC (B)	Error (B - A)	(±) Expanded Uncertainty
1	5.029	5.00	-0.029	0.29 µl
2	10.069	10.00	-0.069	0.29 µl
3	18.118	18.00	-0.118	0.29 µl

1.8 **General Remarks:**

- The reported uncertainty is the expanded uncertainty in measurement obtained by multiplying the standard uncertainty by the coverage factor $k=2$, which corresponds to a coverage probability of approximately 95.45% for a normal distribution.
- Uncertainty to be calculated at Max Error / Full Range of IUC
- Any anomalies/Discrepancies in the certificate should be brought to our notice within 30 days from the date of issue Certificate.
- IUC* (Instrument Under Calibration)
- The Measurements are metrologically traceable to applicable national /International Standards.
- Any hand written corrections (except @) or photocopies of the report invalidates this certificate.
- The results related to the item calibrated.

Calibrated By: Pankal Lal, Senior Calibration Engineer

AUTHORISED SIGNATORY

Ranjit Rohit / Hitesh Patel
 Technical Director / Quality Manager

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CERTIFICATE