



Certificate No.:
CC - 2147



ELECTRO METER CORPORATION
P- 5, C.I.T ROAD,
KOLKATA - 700014

Form No.: FM/22

CALIBRATION CERTIFICATE OF:
MICRO PIPETTE

CALIBRATION CERTIFICATE NO.: EMC2021-KOL-00033354		ULR NO.: CC214721000026533F		Page: 1/1			
1.0 ISSUED TO:		BIOCHEMISTRY DIAGNOSTIC LABORATORY GOVT. MEDICAL COLLEGE SRINAGAR AND ASSOCIATED SMHS HOSPITAL, (F- BLOCK) KARAN NAGAR, SRINAGAR, J&K- 190010					
1.1 Service Request / Order No.:		-					
1.2 Description identification of item to be calibrated:							
i	Name:	MICRO PIPETTE	ii	Code No.:	-		
iii	Sl. No.:	YM4D050945	iv	Make:	ABDOS		
v	Model / Type No.:	-	vi	Range:	2µl to 20µl		
vii	Sensor:	-	viii	Resolution:	0.5 µl		
ix	Location:	Analyzer Room (Room No. 307)					
1.3 Applicable specification of item to be calibrated: Accuracy / permissible limit: ± 0.20 µl (As Per ISO 8655)							
1.4 Date of receipt of item:		20-Aug-2021	1.5 Date of calibration:		20-Aug-2021		
1.6 Recommended date for next calibration		20-Aug-2022	1.7 Frequency of calibration:		12 months		
1.8 Environmental condition during calibration		Temperature:		20°C ± 2°C			
		Humidity:		50% RH ± 10% RH			
		Atmospheric pressure:		1007.6 mbar			
		Water Temperature:		20.2 °C			
1.9 Basis of calibration:		S.O.P Number		S.O.P/Mass/08			
		Standard Followed		ISO 8655:2002 & ISO/TR 20461			
		Description of Method		Calibration of Micropipette using Digital Precision Balance upto 6g/220g, readability 0.001mg/0.01mg and distilled water of known density by Gravimetric method as per ISO 8655:2002 & ISO/TR 20461			
2.0 Traceability : Standards Used for Calibration are Traceable to National/International Standards through ISO/IEC: 17025 Accredited Laboratory.							
Sl. No.	Name of the standard instrument used (Sl. No./Code Nos.)	Range	Resolution	Recommended date for next calibration	Traceable to / Certificate Nos.		
1	Weight Box, Make: Mettler Toledo, Grade: E1, Sl. No: B309075500, Code No. EMC/WB-E1/629	1 mg to 200 g	-	18-04-2022	WMCL / WMCL/E/2019-04/2713		
2	Micro Balance, Make: Mettler Toledo, Model No: XP6, Sl. No. B713878915, Code No. EMC/MB/766	6.1 g	0.000001 g	14-08-2022	EMC (Kolkata) / EMC2021-KOL-00032770		
3	Digital Temperature & Humidity Meter, Make: Metravi, Model No. HT-3005, Sl. No. 141017143, Code No. EMC/DTHM/769	19°C to 25°C (for Temperature) & 15% RH to 80% RH (for Humidity)	0.1°C (for Temperature) & 0.1% RH (for Humidity)	18-03-2022	EMC (Kolkata) / EMC2021-KOL-00011400		
4	Digital Temperature Indicator, Make: Metravi, Model No. DTI-111, Sl. No. 503, Code No. EMC/DTI/267	(-)50°C to 199.9°C	0.1°C	28-10-2021	EMC (Kolkata) / EMC2020-KOL-00032490		
5	Digital Pressure Gauge (Absolute Pressure) Sl. No. D12B151 Model. YDPIR0101, Code No: EMC/APG/574	0 bar to 1.5 bar (Abs)	0.0001 bar	28-08-2021	Wika / WP19/1137		
CALIBRATION RESULT							
Nominal Range	Resolution	Nominal Value	Value determined by Electronic Balance in	Actual value determined after temp correction in	Error in	Expanded Uncertainty (±)	k factor
2 µl to 20 µl	0.5 µl	2 10 20	2.052 10.043 20.080	2.058 10.072 20.138	0.058 0.072 0.138	0.003 0.004 0.004	2.00 2.00 2.00
Note: i) Average of 10 readings had been taken in DUC/STD.							
ii) The calibration certificate is issued by Electro Meter Corporation. This certificate refers only for the particular item submitted to calibrate.							
iii) The certificate if produced for any purpose commercial or otherwise, should be reproduced in full. Partial production of the certificate or an abstract thereof has to be got specifically approved from the technical and the quality manager of this lab.							
iv) The results in the calibration certificate are valid at the time of and under the stated conditions on measurement.							
v) "The Calibration result is only to be used for scientific and industrial purpose. This result can not be used for commercial purpose."							
Measurement uncertainty at approx 95 % of confidence level & at a coverage factor : As Per Calibration Result							
Remarks: Statement of conformity not mentioned.							
DUC- Device Under Calibration		F.S.-Full Scale		Physical status of the DUC: OK			
Calibrated by: Md Naushad Date: 20-08-2021 Report Issue Date : 25-08-2021			Checked & Approved by: Saptarshi Das Date : 25-08-2021				
END OF CERTIFICATE							