



YEA

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CIN : U74140WB2005PTC106389 ★ Toll-Free Help Desk : 1800 345 9001

Calibration Certificate

Certificate No.: YEA(C)/ 220620A/S3087/006

Dated : 22.06.2022

ULR No. : CC222122000029124F

Calibrated for : **Sanguine Diagnostics**

H - I/10, Durga Bhawan, VIP Road, Joramandir,

Baguiati (Near Calcutta Public School), Kolkata - 700159.

Calibrated on.	Next Calibration Due On.	Page No.	No. of Pages
21.06.2022	21.06.2023	1	3

Description of Instrument

Name : Micro Pipette
Identification : Sl. No. : YE219AV0059356
Range : 20 - 200 µl
Least Count : 1 µl
Make : Dragon Lab



CC-2221

Service Request No. / Order Reference : 220620A/S3087/001-010

Receipt of Instrument : 20.06.2022

Location where calibration performed : At permanent laboratory

Applicable Specification of Instrument to be Calibrated : Not Specified

Condition of Instrument to be Calibrated : Satisfactory

Basis of Calibration : Comparison method with reference to YEA/WI/M-47

Environmental Condition during Calibration : *Temp.* : (23±2)°C *RH* : (50±10)%

Equipment used for Calibration : Standard Electronic Balance & Distilled Water

Traceability : To National Standard vide Certificate No: YEA(C)/210911/Y001/001 valid till 10.09.2022

Measurement Uncertainty : The figures are stated in the result at coverage factor $k = 2$ corresponding to confidence probability of 95% for normal distribution.

Laboratory Identification : Sticker is affixed for authentication of calibration.

The above Instrument/Equipment/Machine has been calibrated up to its range.

The results are given in the page 2 to 3 ...of the certificate.

Cont.....2

YEA(C)/F-08



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Page 2 of 3 Pages

Calibrated By : M. Gayan

Calibration Results

Mechanical Calibration

A) Calibration Result of Micro Pipette :

Sl. No.	DUC Value	Standard Value	Mean Value	Systematic Error (es)	Random Error (cv)	Measurement Uncertainty
	(μ l)	(μ l)	(μ l)	(μ l)	(μ l)	($\pm \mu$ l)
1	20	20.112	20.105	-0.105	0.014	0.011
2		20.087				
3		20.084				
4		20.095				
5		20.098		Standard Limit Value as Per ISO 8655 - 2 : 2002 ($\pm \mu$ l)		
6		20.110				
7		20.107		0.200	0.100	
8		20.120				
9		20.129				
10		20.110				

Sl. No.	DUC Value	Standard Value	Mean Value	Systematic Error (es)	Random Error (cv)	Measurement Uncertainty
	(μ l)	(μ l)	(μ l)	(μ l)	(μ l)	($\pm \mu$ l)
1	100	100.479	100.498	-0.498	0.016	0.013
2		100.490				
3		100.499				
4		100.516				
5		100.512		Standard Limit Value as Per ISO 8655 - 2 : 2002 ($\pm \mu$ l)		
6		100.482				
7		100.488		0.800	0.300	
8		100.493				
9		100.496				
10		100.531				

cont...3



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Page 3 of 3 Pages

Sl. No.	DUC Value	Standard Value	Mean Value	Systematic Error (es)	Random Error (cv)	Measurement Uncertainty
	(μl)	(μl)	(μl)	(μl)	(μl)	($\pm \mu\text{l}$)
1	200	200.779	200.745	-0.745	0.021	0.016
2		200.751				
3		200.725				
4		200.738		Standard Limit Value as Per ISO 8655 - 2 : 2002 ($\pm \mu\text{l}$)		
5		200.717				
6		200.753		1.600	0.600	
7		200.745				
8		200.747				
9		200.721				
10		200.774				

DUC : Device Under Calibration

REMARKS : The above Micro Pipette has been calibrated and the readings are tabulated above.

NOTES : This certificate refers to the results tabulated at the time of calibration only for the above mentioned item submitted for calibration and this should not be reproduced, other than in full except with prior written approval from the head of calibration laboratory.

Authorised By



A. Das
Manager Calibration

*** End of the Calibration Certificate ***

