



TransCal

Measurement to Perfection...



Main Bld. Premises : Centenary Building (G. Flr), Door No. At : 100
W. Park Rd., Between Sampighe Road And Margosa Rd.,
10th Crs., Malleswaram, Bangalore City, Pin - 560003

CALIBRATION CERTIFICATE

Customer Name & Add. : M/s. Clinical Laboratory
CARI, GHY-781028

Customer's Reference :

SRF No. : TSC/22-23/7590

Dated : 11 Aug 2022

ULR.NO CC223122000080847F

Calibration Certificate Number	Calibrated On	Recommended Calibration Due	Page Number
TSC/22-23/7590-7	11 Aug 2022	11 Aug 2023	1 of 2

Details of device under calibration		Transcal ID	:	TSC365914
Nomenclature	: pipette[Variable Volume pipette]	No. of Pages	:	2
Make	: Precise XX	Cal Procedure No.	:	TSC/CAL/610
Model/Range	: NA	DUC Received	:	11 Aug 2022
SI No.	: CARI-II	DUC Condition on Receipt	:	Satisfactory
ID No.	: NA	Cal At	:	Mechanical Lab

Environmental Conditions : Temperature in °C : 21.2

Humidity in RH % : 52.1

Standards used :

SI No.	Nomenclature	Make	Model	SI No./ID.No.	Certificate No.	Validity
1	Electronic Weighing Balance	Mettler Toledo	AG 285	1120102251	TSC/21-22/INH/MECH-19-1	25 Jan 2023

Note :

1. This Calibration Certificate relates only to the above DUC & Reported results are valid at the time of and under the stated conditions of measurements.
2. Partial Publication/ reproduction of this Certificate in any form is not permitted without the written consent of Transcal.
3. Errors if any, in this Certificate shall be brought to notice within 45 days from the date of this Certificate
4. Measurement Uncertainty reported is at approximately 95 % confidence level with k=2; Units of Measurement results & Measurement Uncertainty are same as that of range selected - Unless otherwise indicated.
5. Calibration of the DUC are traceable to National/International Standards
6. Corrections/erasing, invalidate the Calibration Certificate- exception to the 'Final Page or Part of this Report- provided for incorporation of additional data(To be filled by customer authorized signatory and not under calibration laboratory control).
7. In Result Sheets, 'Pass' indicates measured readings are within specification limit, 'Fail' Indicates measured readings are out of specification limit & '-' indicates no specification limit furnished.
8. Unless otherwise specified the Measurement Data reported is "As Found"-Without any adjustment .
9. Consider Model or Range whichever is applicable.
10. Nabl-133 guidelines are adopted for use of NABL symbol.

Calibrated By

Janardhan S
(Calibration Engineer)

Checked By

Shiva P
(Calibration Engineer)



Authorised By

Manjunath D J
(Lab In charge)



CAL CERT. NO : TSC/22-23/7590-7

ULR.NO : CC223122000080847F

Page : 2 of 2

Range : 100-1000 μ l
 Increment : 10 μ l

Atmospheric Pressure : 907.2 mbar

Sl. No.	Micropipette Set Volume in μ l	Standard Balance Reading in g	Actual Calculated Volume @ 20°C in μ l	Average Volume in μ l	Systematic Error, \pm in %	Random Error, in \pm in %
1	100	0.10010	100.21	100.21	0.21	0.05
2		0.10011	100.22			
3		0.10009	100.20			
4		0.10012	100.23			
5		0.10015	100.26			
6		0.10021	100.32			
7		0.10007	100.18			
8		0.10006	100.17			
9		0.10005	100.16			
10		0.10004	100.15			
11	500	0.50049	501.02	500.93	0.19	0.02
12		0.50048	501.01			
13		0.50053	501.06			
14		0.50041	500.94			
15		0.50039	500.92			
16		0.50035	500.88			
17		0.50034	500.87			
18		0.50021	500.74			
19		0.50036	500.89			
20		0.50037	500.90			
21	1000	1.00137	1002.44	1002.40	0.24	0.00
22		1.00136	1002.43			
23		1.00135	1002.42			
24		1.00133	1002.40			
25		1.00133	1002.40			
26		1.00134	1002.41			
27		1.00136	1002.43			
28		1.00131	1002.38			
29		1.00129	1002.36			
30		1.00126	1002.33			

Measurement Uncertainty : \pm 0.11 μ l

Conclusion / Remarks:

- 1 Measurement uncertainty is at confidence level 95% which corresponds to a coverage factor of $k = 2.00$
- 2 Calibration is performed as per ISO 8655 - 6 : 2002 (E)
- 3 Gravimetric Method is adopted for calibration

Calibrated By

kt
 Janardhan S
 (Calibration Engineer)

Checked By

[Signature]
 Shiva P
 (Calibration Engineer)



Authorised By

[Signature]
 Manjunath D J
 (Lab In charge)



TransCal

Measurement to Perfection...



Main Bld. Premises : Centenary Building (G. Flr), Door No. At : 100
W. Park Rd., Between Sampighe Road And Margosa Rd.,
10th Crs., Malleswaram, Bangalore City, Pin-560003

CC-2231

CALIBRATION CERTIFICATE

Customer Name & Add. : M/s. Clinical Laboratory
CARI,GHY-781028

Customer's Reference :

SRF No. : TSC/22-23/7590

Dated : 11 Aug 2022

ULR.NO GC223122000080857F

Calibration Certificate Number	Calibrated On	Recommended Calibration Due	Page Number
TSC/22-23/7590-8	11 Aug 2022	11 Aug 2023	1 of 2

Details of device under calibration		Transcal ID	: TSC365928
Nomenclature	: pipette[Fixed Volume Pipette]	No. of Pages	: 2
Make	: Hi-Pette	Cal Procedure No.	: TSC/CAL/610
Model/Range	: NA	DUC Received	: 11 Aug 2022
SI No.	: CARI-I	DUC Condition on Receipt	: Satisfactory
ID No.	: NA	Cal At	: Mechanical Lab

Environmental Conditions : Temperature in °C : 21.2

Humidity in RH % : 52.1

Standards used :

SI No.	Nomenclature	Make	Model	SI No/ID.No.	Certificate No.	Validity
1	Electronic Weighing Balance	Mettler Toledo	AG 285	1120102251	TSC/21-22/INH/MECH-19-1	25 Jan 2023

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9. Consider Model or Range whichever is applicable.
10. Nabl-133 guidelines are adopted for use of NABL symbol.

Calibrated By

Checked By

Authorised By

Janardhan S
(Calibration Engineer)

Shiva P
(Calibration Engineer)



Manjunath D J
(Lab In charge)



CAL CERT. NO : TSC/22-23/7590-8

ULR.NO : CC223122000080857F

Page : 2 of 2

Range : 1000 μ l

Atmospheric Pressure : 907.5 mbar

Sl. No.	Micropipette Set Volume in μ l	Standard Balance Reading in g	Actual Calculated Volume @ 20°C in μ l	Average Volume in μ l	Systematic Error, \pm in %	Random Error, in \pm in %
1	1000	1.00010	1001.17	1001.21	0.12	0.00
2		1.00011	1001.18			
3		1.00012	1001.19			
4		1.00013	1001.20			
5		1.00014	1001.21			
6		1.00015	1001.22			
7		1.00016	1001.23			
8		1.00017	1001.24			
9		1.00018	1001.25			
10		1.00013	1001.20			

Measurement Uncertainty : \pm 0.11 μ l

Conclusion / Remarks:

- 1 Measurement uncertainty is at confidence level 95% which corresponds to a coverage factor of $k = 2.00$
- 2 Calibration is performed as per ISO 8655 - 6 : 2002 (E)
- 3 Gravimetric Method is adopted for calibration

Calibrated By


Janardhan S
(Calibration Engineer)

Checked By


Shiva P
(Calibration Engineer)



Authorised By


Manjunath D J
(Lab In charge)



TransCal

Measurement to Perfection...

Main Bld. Premises : Centenary Building (G. Flr), Door No. At : 100
W. Park Rd., Between Sampighe Road And Margosa Rd.,
10th Crs., Malleswaram, Bangalore City, Pin - 560003



CALIBRATION CERTIFICATE

Customer Name & Add. : M/s. Clinical Laboratory
CARI, GHY-781028

Customer's Reference : SRF No. : TSC/22-23/7590 Dated : 11 Aug 2022
ULR.NO CC223122000080859F

Calibration Certificate Number	Calibrated On	Recommended Calibration Due	Page Number
TSC/22-23/7590-9	11 Aug 2022	11 Aug 2023	1 of 2

Details of device under calibration

Transcal ID : TSC365930

Nomenclature : pipette[Variable Volume pipette]	No. of Pages : 2
Make : Erba	Cal Procedure No. : TSC/CAL/610
Model/Range : --	DUC Received : 11 Aug 2022
SI No. : AB152401	DUC Condition on Receipt : Satisfactory
ID No. : NA	Cal At : Mechanical Lab

Environmental Conditions : Temperature in °C : 21.2

Humidity in RH % : 52.1

Standards used :

SI No.	Nomenclature	Make	Model	SI No./ID.No.	Certificate No.	Validity
1	Electronic Weighing Balance	Mettler Toledo	AG 285	1120102251	TSC/21-22/INH/MECH-19-1	25 Jan 2023

Note :

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9. Consider Model or Range whichever is applicable.
10. Nabl-133 guidelines are adopted for use of NABL symbol.

Calibrated By

Janardhan S
(Calibration Engineer)

Checked By

Shiva P
(Calibration Engineer)



Authorised By J

Manjunath D J
(Lab In charge)



CAL CERT. NO : TSC/22-23/7590-9

ULR.NO : CC223122000080859F

Page : 2 of 2

Range : 100-1000 μ l
Increment : 5 μ l

Atmospheric Pressure : 907.5 mbar

Sl. No.	Micropipette Set Volume in μ l	Standard Balance Reading in g	Actual Calculated Volume @ 20°C in μ l	Average Volume in μ l	Systematic Error, \pm in %	Random Error, in \pm in %
1	100	0.10001	100.12	100.16	0.16	0.03
2		0.10002	100.13			
3		0.10003	100.14			
4		0.10004	100.15			
5		0.10005	100.16			
6		0.10006	100.17			
7		0.10007	100.18			
8		0.10008	100.19			
9		0.10009	100.20			
10		0.10004	100.15			
11	500	0.50049	501.03	500.93	0.19	0.02
12		0.50048	501.01			
13		0.50053	501.07			
14		0.50041	500.94			
15		0.50039	500.92			
16		0.50035	500.88			
17		0.50034	500.87			
18		0.50021	500.74			
19		0.50036	500.89			
20		0.50037	500.90			
21	1000	1.00001	1001.08	1001.12	0.11	0.00
22		1.00002	1001.09			
23		1.00003	1001.10			
24		1.00004	1001.11			
25		1.00005	1001.12			
26		1.00006	1001.13			
27		1.00007	1001.14			
28		1.00008	1001.15			
29		1.00009	1001.16			
30		1.00010	1001.17			

Measurement Uncertainty : \pm 0.11 μ l

Conclusion / Remarks:

- 1 Measurement uncertainty is at confidence level 95% which corresponds to a coverage factor of $k = 2.00$
- 2 Calibration is performed as per ISO 8655 - 6 : 2002 (E)
- 3 Gravimetric Method is adopted for calibration

Calibrated By

Janardhan S
(Calibration Engineer)

Checked By

Shiva P
(Calibration Engineer)

Authorised By

Manjunath D J
(Lab In charge)



TransCal

Measurement to Perfection...



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W. Park Rd., Between Sampighe Road And Margosa Rd.,
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CALIBRATION CERTIFICATE

Customer Name & Add. : M/s. Clinical Laboratory
CARI,GHY-781028

Customer's Reference : SRF No. : TSC/22-23/7590 Dated : 11 Aug 2022
ULR.NO CC223122000080848F

Calibration Certificate Number	Calibrated On	Recommended Calibration Due	Page Number
TSC/22-23/7590-10	11 Aug 2022	11 Aug 2023	1 of 2

Details of device under calibration		Transcal ID	: TSC365931
Nomenclature	: pipette[Variable Volume pipette]	No. of Pages	: 2
Make	: Precise	Cal Procedure No.	: TSC/CAL/610
Model/Range	: NA	DUC Received	: 11 Aug 2022
SI No.	: CARI-IV	DUC Condition on Receipt	: Satisfactory
ID No.	: NA	Cal At	: Mechanical Lab

Environmental Conditions : Temperature in °C : 21.2 Humidity in RH % : 52.1

Standards used :

SI No.	Nomenclature	Make	Model	SI No/ID.No.	Certificate No.	Validity
1	Electronic Weighing Balance	Mettler Toledo	AG 285	1120102251	TSC/21-22/INH/MECH-19-1	25 Jan 2023

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9. Consider Model or Range whichever is applicable.
10. Nabl-133 guidelines are adopted for use of NABL symbol.

Calibrated By

Janardhan S
(Calibration Engineer)

Checked By

Shiva P
(Calibration Engineer)



Authorised By

Manjunath D J
(Lab In charge)



CAL CERT. NO : TSC/22-23/7590-10

ULR.NO : CC223122000080848F

Page : 2 of 2

Range : 10-100 μ l
Increment : 1 μ l

Atmospheric Pressure : 906.2 mbar

Sl. No.	Micropipette Set Volume in μ l	Standard Balance Reading in g	Actual Calculated Volume @ 20°C in μ l	Average Volume in μ l	Systematic Error, \pm in %	Random Error, in \pm in %
1	10	0.01001	10.02	10.04	0.41	0.25
2		0.01002	10.03			
3		0.01003	10.04			
4		0.01004	10.05			
5		0.01005	10.06			
6		0.01006	10.07			
7		0.01007	10.08			
8		0.01003	10.04			
9		0.01001	10.02			
10		0.00999	10.00			
11	50	0.04999	50.04	50.03	0.07	0.02
12		0.04999	50.04			
13		0.04998	50.03			
14		0.04999	50.04			
15		0.04998	50.03			
16		0.04997	50.02			
17		0.04999	50.04			
18		0.04997	50.02			
19		0.04997	50.02			
20		0.04998	50.03			
21	100	0.10003	100.14	100.12	0.12	0.02
22		0.10003	100.14			
23		0.10004	100.15			
24		0.10005	100.16			
25		0.09998	100.09			
26		0.09999	100.10			
27		0.10000	100.11			
28		0.10001	100.12			
29		0.10003	100.14			
30		0.10002	100.13			

Measurement Uncertainty : \pm 0.04 μ l

Conclusion / Remarks:

- 1 Measurement uncertainty is at confidence level 95% which corresponds to a coverage factor of $k = 2.00$
- 2 Calibration is performed as per ISO 8655 - 6 : 2002 (E)
- 3 Gravimetric Method is adopted for calibration

Calibrated By

Kt
Janardhan S
(Calibration Engineer)

Checked By

[Signature]
Shiva P
(Calibration Engineer)



Authorised By

[Signature]
Manjunath D J
(Lab In charge)



TransCal

Measurement to Perfection...



Main Bld. Premises : Centenary Building (G. Flr), Door No. At : 100
W. Park Rd., Between Sampighe Road And Margosa Rd.,
10th Crs., Malleswaram, Bangalore City, Pin - 560003

CALIBRATION CERTIFICATE

Customer Name & Add. : M/s. Clinical Laboratory
CARI, GHY-781028

Customer's Reference : SRF No. : TSC/22-23/7590 Dated : 11 Aug 2022
ULR.NO CC223122000080845F

Calibration Certificate Number	Calibrated On	Recommended Calibration Due	Page Number
TSC/22-23/7590-11	11 Aug 2022	11 Aug 2023	1 of 2

Details of device under calibration		Transcal ID : TSC365941	
Nomenclature	: pipette[Variable Volume pipette]	No. of Pages	: 2
Make	: --	Cal Procedure No.	: TSC/CAL/610
Model/Range	: NA	DUC Received	: 11 Aug 2022
SI No.	: CARI-VII	DUC Condition on Receipt	: Satisfactory
ID No.	: NA	Cal At	: Mechanical Lab

Environmental Conditions : Temperature in °C : 21.2 Humidity in RH % : 52.1

Standards used :

SI No.	Nomenclature	Make	Model	SI No./ID.No.	Certificate No.	Validity
1	Electronic Weighing Balance	Mettler Toledo	AG 285	1120102251	TSC/21-22/INH/MECH-19-1	25 Jan 2023

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10. Nabl-133 guidelines are adopted for use of NABL symbol.

Calibrated By

Janardhan S
(Calibration Engineer)

Checked By

Shiva P
(Calibration Engineer)



Authorised By

Manjunath D J
(Lab In charge)



CAL CERT. NO : TSC/22-23/7590-11

ULR.NO : CC223122000080845F

Page : 2 of 2

Range : 10-100 μ l
 Increment : 1 μ l

Atmospheric Pressure : 906.3 mbar

Sl. No.	Micropipette Set Volume in μ l	Standard Balance Reading in g	Actual Calculated Volume @ 20°C in μ l	Average Volume in μ l	Systematic Error, \pm in %	Random Error, in \pm in %
1	10	0.01001	10.02	10.02	0.20	0.24
2		0.01004	10.05			
3		0.01003	10.04			
4		0.01002	10.03			
5		0.01001	10.02			
6		0.01002	10.03			
7		0.01000	10.01			
8		0.01001	10.02			
9		0.01001	10.02			
10		0.00995	9.96			
11	50	0.04999	50.04	50.06	0.12	0.06
12		0.05000	50.05			
13		0.05001	50.06			
14		0.05002	50.07			
15		0.05003	50.08			
16		0.05004	50.09			
17		0.05006	50.11			
18		0.04997	50.02			
19		0.04997	50.02			
20		0.04998	50.03			
21	100	0.10002	100.13	100.11	0.11	0.01
22		0.10001	100.12			
23		0.10000	100.11			
24		0.10002	100.13			
25		0.09998	100.09			
26		0.09999	100.10			
27		0.10000	100.11			
28		0.10001	100.12			
29		0.10000	100.11			
30		0.10002	100.13			

Measurement Uncertainty : \pm 0.04 μ l

Conclusion / Remarks:

- 1 Measurement uncertainty is at confidence level 95% which corresponds to a coverage factor of $k = 2.00$
- 2 Calibration is performed as per ISO 8655 - 6 : 2002 (E)
- 3 Gravimetric Method is adopted for calibration

Calibrated By


 Janardhan S
 (Calibration Engineer)

Checked By


 Shiva P
 (Calibration Engineer)



Authorised By


 Manjunath D J
 (Lab In charge)



TransCal

Measurement to Perfection...



CC-2231

Main Bld. Premises : Centenary Building (G. Flr), Door No. At : 100
W. Park Rd., Between Sampighe Road And Margosa Rd.,
10th Crs., Malleswaram, Bangalore City, Pin-560003

CALIBRATION CERTIFICATE

Customer Name & Add. : M/s. Clinical Laboratory
CARI,GHY-781028

Customer's Reference : SRF No. : TSC/22-23/7590 Dated : 11 Aug 2022

ULR.NO CC223122000080854F

Calibration Certificate Number	Calibrated On	Recommended Calibration Due	Page Number
TSC/22-23/7590-12	11 Aug 2022	11 Aug 2023	1 of 2

Details of device under calibration		Transcal ID : TSC365959	
Nomenclature	: pipette[Variable Volume pipette]	No. of Pages	: 2
Make	: Thermo Scientific	Cal Procedure No.	: TSC/CAL/610
Model/Range	: Finnipette-F2	DUC Received	: 11 Aug 2022
SI No.	: PW12763	DUC Condition on Receipt	: Satisfactory
ID No.	: NA	Cal At	: Mechanical Lab

Environmental Conditions : Temperature in °C : 21.2

Humidity in RH % : 52.1

Standards used :

SI No.	Nomenclature	Make	Model	SI No/ID.No.	Certificate No.	Validity
1	Electronic Weighing Balance	Mettler Toledo	AG 285	1120102251	TSC/21-22/INH/MECH-19-1	25 Jan 2023

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Calibrated By

Janardhan S
(Calibration Engineer)

Checked By

Shiva P
(Calibration Engineer)



Authorised By

Manjunath D J
(Lab In charge)



CAL CERT. NO : TSC/22-23/7590-12

ULR.NO : CC223122000080854F

Page : 2 of 2

Range : 100-1000 μ l
 Increment : 5 μ l

Atmospheric Pressure : 906.2 mbar

Sl. No.	Micropipette Set Volume in μ l	Standard Balance Reading in g	Actual Calculated Volume @ 20°C in μ l	Average Volume in μ l	Systematic Error, \pm in %	Random Error, in \pm in %
1	100	0.10010	100.21	100.21	0.21	0.05
2		0.10011	100.22			
3		0.10009	100.20			
4		0.10012	100.23			
5		0.10015	100.26			
6		0.10021	100.32			
7		0.10007	100.18			
8		0.10006	100.17			
9		0.10005	100.16			
10		0.10004	100.15			
11	500	0.50049	501.02	500.93	0.19	0.02
12		0.50048	501.01			
13		0.50053	501.06			
14		0.50041	500.94			
15		0.50039	500.92			
16		0.50035	500.88			
17		0.50034	500.87			
18		0.50021	500.74			
19		0.50036	500.89			
20		0.50037	500.90			
21	1000	1.00137	1002.44	1002.40	0.24	0.00
22		1.00136	1002.43			
23		1.00135	1002.42			
24		1.00133	1002.40			
25		1.00133	1002.40			
26		1.00134	1002.41			
27		1.00136	1002.43			
28		1.00131	1002.38			
29		1.00129	1002.36			
30		1.00126	1002.33			

Measurement Uncertainty : \pm 0.11 μ l

Conclusion / Remarks:

- 1 Measurement uncertainty is at confidence level 95% which corresponds to a coverage factor of k = 2.00
- 2 Calibration is performed as per ISO 8655 - 6 : 2002 (E)
- 3 Gravimetric Method is adopted for calibration

Calibrated By

Janardhan S
 (Calibration Engineer)

Checked By

Shiva P
 (Calibration Engineer)



Authorised By

Manjunath D J
 (Lab In charge)



TransCal

Measurement to Perfection...



Main Bld. Premises : Centenary Building (G. Fir), Door No. At : 100
W. Park Rd., Between Sampighe Road And Margosa Rd.,
10th Crs., Malleswaram, Bangalore City, Pin - 560003

CC-2231

CALIBRATION CERTIFICATE

Customer Name & Add. : M/s. Clinical Laboratory
CARI,GHY-781028

Customer's Reference :

SRF No. : TSC/22-23/7590

Dated : 11 Aug 2022

ULR.NO CC22312200080851F

Calibration Certificate Number	Calibrated On	Recommended Calibration Due	Page Number
TSC/22-23/7590-13	11 Aug 2022	11 Aug 2023	1 of 2

Details of device under calibration

Transcal ID

: TSC365966

Nomenclature : pipette[Fixed Volume Pipette]	No. of Pages : 2
Make : Vertex	Cal Procedure No. : TSC/CAL/610
Model/Range : NA	DUC Received : 11 Aug 2022
SI No. : CARI-III	DUC Condition on Receipt : Satisfactory
ID No. : NA	Cal At : Mechanical Lab

Environmental Conditions : Temperature in °C : 21.2

Humidity in RH % : 52.1

Standards used :

SI No.	Nomenclature	Make	Model	SI No./ID.No.	Certificate No.	Validity
1	Electronic Weighing Balance	Mettler Toledo	AG 285	1120102251	TSC/21-22/INH/MECH-19-1	25 Jan 2023

Note :

1. This Calibration Certificate relates only to the above DUC & Reported results are valid at the time of and under the stated conditions of measurements.
2. Partial Publication/ reproduction of this Certificate in any form is not permitted without the written consent of Transcal.
3. Errors if any, in this Certificate shall be brought to notice within 45 days from the date of this Certificate
4. Measurement Uncertainty reported is at approximately 95 % confidence level with k=2; Units of Measurement results & Measurement Uncertainty are same as that of range selected - Unless otherwise indicated.
5. Calibration of the DUC are traceable to National/International Standards
6. Corrections/erasing, invalidate the Calibration Certificate- exception to the 'Final Page or Part of this Report- provided for incorporation of additional data(To be filled by customer authorized signatory and not under calibration laboratory control).
7. In Result Sheets, 'Pass' indicates measured readings are within specification limit, 'Fail' Indicates measured readings are out of specification limit & '-' indicates no specification limit furnished.
8. Unless otherwise specified the Measurement Data reported is "As Found"-Without any adjustment.
9. Consider Model or Range whichever is applicable.
10. Nabl-133 guidelines are adopted for use of NABL symbol.

Calibrated By

Janardhan S
(Calibration Engineer)

Checked By

Shiva P
(Calibration Engineer)



Authorised By

Manjunath D J
(Lab In charge)



CAL CERT. NO : TSC/22-23/7590-13

ULR.NO : CC223122000080851F

Range : 100 μ l

Atmospheric Pressure : 905.3 mbar

Sl. No.	Micropipette Set Volume in μ l	Standard Balance Reading in g	Actual Calculated Volume @ 20°C in μ l	Average Volume in μ l	Systematic Error, \pm in %	Random Error, in \pm in %
1	100	0.10001	100.12	100.15	0.15	0.02
2		0.10002	100.13			
3		0.10003	100.14			
4		0.10004	100.15			
5		0.10005	100.16			
6		0.10006	100.17			
7		0.10007	100.18			
8		0.10008	100.19			
9		0.10002	100.13			
10		0.10003	100.14			

Measurement Uncertainty : \pm 0.11 μ l

Conclusion / Remarks:

- 1 Measurement uncertainty is at confidence level 95% which corresponds to a coverage factor of $k = 2.00$
- 2 Calibration is performed as per ISO 8655 - 6 : 2002 (E)
- 3 Gravimetric Method is adopted for calibration

Calibrated By

Janardhan S
(Calibration Engineer)

Checked By

Shiva P
(Calibration Engineer)



Authorised By

Manjunath D J
(Lab In charge)



TransCal

Measurement to Perfection...



Main Bld. Premises : Centenary Building (G. Flr), Door No. At : 100
W. Park Rd., Between Sampighe Road And Margosa Rd.,
10th Crs., Malleswaram, Bangalore City, Pin - 560003

CALIBRATION CERTIFICATE

Customer Name & Add. : M/s. Clinical Laboratory
CARI, GHY-781028

Customer's Reference :

SRF No. : TSC/22-23/7590

Dated : 11 Aug 2022

ULR.NO CC223122000080846F

Calibration Certificate Number	Calibrated On	Recommended Calibration Due	Page Number
TSC/22-23/7590-14	11 Aug 2022	11 Aug 2023	1 of 2

Details of device under calibration		Transcal ID	: TSC365967	
Nomenclature	: pipette[Fixed Volume Pipette]	No. of Pages	: 2	
Make	: Vertex	Cal Procedure No.	: TSC/CAL/610	
Model/Range	: NA	DUC Received	: 11 Aug 2022	
SI No.	: CARI-V	DUC Condition on Receipt	: Satisfactory	
ID No.	: NA	Cal At	: Mechanical Lab	

Environmental Conditions : Temperature in °C : 21.2

Humidity in RH % : 52.1

Standards used :

SI No.	Nomenclature	Make	Model	SI No./ID.No.	Certificate No.	Validity
1	Electronic Weighing Balance	Mettler Toledo	AG 285	1120102251	TSC/21-22/INH/MECH-19-1	25 Jan 2023

Note :

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8. Unless otherwise specified the Measurement Data reported is "As Found"-Without any adjustment .
9. Consider Model or Range whichever is applicable.
10. Nabl-133 guidelines are adopted for use of NABL symbol.

Calibrated By

Janardhan S
(Calibration Engineer)

Checked By

Shiva P
(Calibration Engineer)



Authorised By

Manjunath D J
(Lab In charge)



CAL CERT. NO : TSC/22-23/7590-14

ULR.NO : CC223122000080846F

Page : 2 of 2

Range : 10 μ l

Atmospheric Pressure : 906.3 mbar

Sl. No.	Micropipette Set Volume in μ l	Standard Balance Reading in g	Actual Calculated Volume @ 20°C in μ l	Average Volume in μ l	Systematic Error, \pm in %	Random Error, in \pm in %
1	10	0.01001	10.02	10.05	0.50	0.25
2		0.01002	10.03			
3		0.01003	10.04			
4		0.01004	10.05			
5		0.01005	10.06			
6		0.01006	10.07			
7		0.01007	10.08			
8		0.01008	10.09			
9		0.01001	10.02			
10		0.01002	10.03			

Measurement Uncertainty : \pm 0.04 μ l

Conclusion / Remarks:

- 1 Measurement uncertainty is at confidence level 95% which corresponds to a coverage factor of $k = 2.00$
- 2 Calibration is performed as per ISO 8655 - 6 : 2002 (E)
- 3 Gravimetric Method is adopted for calibration

Calibrated By


Janardhan S
(Calibration Engineer)

Checked By


Shiva P
(Calibration Engineer)



Authorised By


Manjunath D J
(Lab In charge)



TransCal

Measurement to Perfection...



Main Bld. Premises : Centenary Building (G. Flr), Door No. At : 100
W. Park Rd., Between Sampighe Road And Margosa Rd.,
10th Crs., Malleswaram, Bangalore City, Pin - 560003

CALIBRATION CERTIFICATE

Customer Name & Add. : M/s. Clinical Laboratory
CARI,GHY-781028

Customer's Reference : SRF No. : TSC/22-23/7590 Dated : 11 Aug 2022
ULR.NO CC223122000080849F

Calibration Certificate Number	Calibrated On	Recommended Calibration Due	Page Number
TSC/22-23/7590-15	11 Aug 2022	11 Aug 2023	1 of 2

Details of device under calibration		Transcal ID	: TSC365968
Nomenclature	: Pipette[Variable Volume pipette]	No. of Pages	: 2
Make	: Accupipette	Cal Procedure No.	: TSC/CAL/610
Model/Range	: NA	DUC Received	: 11 Aug 2022
SI No.	: V28328	DUC Condition on Receipt	: Satisfactory
ID No.	: NA	Cal At	: Mechanical Lab

Environmental Conditions : Temperature in °C : 21.2 Humidity in RH % : 52.1

Standards used :

SI No.	Nomenclature	Make	Model	SI No./ID.No.	Certificate No.	Validity
1	Electronic Weighing Balance	Mettler Toledo	AG 285	1120102251	TSC/21-22/INH/MECH-19-1	25 Jan 2023

Note :

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8. Unless otherwise specified the Measurement Data reported is "As Found"-Without any adjustment .
9. Consider Model or Range whichever is applicable.
10. Nabl-133 guidelines are adopted for use of NABL symbol.

Calibrated By

Janardhan S
(Calibration Engineer)

Checked By

Shiva P
(Calibration Engineer)



Authorised By

Manjunath D J
(Lab In charge)



CAL CERT. NO : TSC/22-23/7590-11

ULR.NO : CC223122000080845F

Range : 10-100 μ l
 Increment : 0.2 μ l

Atmospheric Pressure : 906.3 mbar

Sl. No.	Micropipette Set Volume in μ l	Standard Balance Reading in g	Actual Calculated Volume @ 20°C in μ l	Average Volume in μ l	Systematic Error, \pm in %	Random Error, in \pm in %
1	10	0.01001	10.02	10.02	0.15	0.24
2		0.01004	10.05			
3		0.01003	10.04			
4		0.1002	10.03			
5		0.1000	10.01			
6		0.00998	9.99			
7		0.01000	10.01			
8		0.1001	10.02			
9		0.01001	10.02			
10		0.00995	9.96			
11	50	0.04999	50.04	50.06	0.12	0.06
12		0.05000	50.05			
13		0.05001	50.06			
14		0.05002	50.07			
15		0.05003	50.08			
16		0.05004	50.09			
17		0.05006	50.11			
18		0.04997	50.02			
19		0.04997	50.02			
20		0.04998	50.03			
21	100	0.10002	100.13	100.11	0.11	0.01
22		0.10001	100.12			
23		0.10000	100.11			
24		0.10002	100.13			
25		0.09998	100.09			
26		0.09999	100.10			
27		0.10000	100.11			
28		0.10001	100.12			
29		0.10000	100.11			
30		0.10002	100.13			

Measurement Uncertainty : \pm 0.04 μ l

Conclusion/ Remarks:

1. Measurement uncertainty is at 95% Confidence level which corresponds to a coverage factor k= 2
2. Calibration is performed as per ISO 8655 - 6 : 2002 (E)
3. Gravimetric Method is adopted for calibration.



Calibrated By

[Signature]
 Janardhan S
 (Calibration Engineer)

Checked By

[Signature]
 Shiva P
 (Calibration Engineer)

Authorised By

[Signature]
 Manjunath D J
 (Lab In charge)



TransCal

Measurement to Perfection...



Main Bld. Premises : Centenary Building (G. Fir), Door No. At : 100
W. Park Rd., Between Sampighe Road And Margosa Rd.,
10th Crs., Malleshwaram, Bangalore City, Pin - 560003

CC-2231

CALIBRATION CERTIFICATE

Customer Name & Add. : M/s. Transcal
Centenary Building, Door No. 100, 10th Cross, W. Park Rd, Malleshwaram Bangalore
Karnataka IND 560003

Customer's Reference : SRF No. : TSC/21-22/INH/MECH-19 Dated : 24 Jan 2022

ULR.NO CC223122000008885F

Calibration Certificate Number	Calibrated On	Recommended Calibration Due	Page Number
TSC/21-22/INH/MECH-19-1	25 Jan 2022	25 Jan 2023	1 of 3

Details of device under calibration		Transcal ID	: TSC107388
Nomenclature : Electronic Balance		No. of Pages	: 3
Make : Metler Toledo		Cal Procedure No.	: TSC/CAL/606
Model/Range : AG 285		DUC Received	: 24 Jan 2022
SI No. : 1120102251		DUC Condition on Receipt	: Satisfactory
D No. : TSC/Mech-19		Cal At	: Mechanical Lab

Environmental Conditions : Temperature in °C : 20.6

Humidity in RH % : 51.8

Standards used :

SI No.	Nomenclature	Make	Model	SI No/ID.No.	Certificate No.	Validity
1	E1 Class Weights	Weigh India	--	TSC/MECH-311	WI/Sept/21/006	24 Sep 2024

Note :

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10. Nabl-133 guidelines are adopted for use of NABL symbol.

Calibrated By

Shiva P
(Calibration Engineer)

Checked By

Manjunath D J
(Lab In charge)



Authorised By

Manjunath D J
(Lab In charge)