



O46498J



CAL-M006960

Calibration Done By : ACE Pipettes LLC, Cypress, TX

**Client Information**

Customer Name Sagis  
 Street Address 4131 Directors Row  
 City-Zip Code Houston, 77092  
 Customer Dept TOXICOLOGY

**Laboratory Test Conditions- As Left**

Env. Temp (°C) 21.0  
 Env. Pr (kPa) 101.3  
 Humidity(% RH) 33.0  
 Z- Factor 1.0031

**Client Pipette Details: -Pipette Multi Ch. Eppendorf Research Plus 8 Ch. 30 - 300 uL**

S/L No: O46498J Test Date 02/05/2021  
 Next Schedule date 02/05/2022

**Laboratory Test Equipment and Standards**

PID	Description	S/L No:	Last Cal Date	Next Cal Date
AM000842	Weight Standard	08496	08/04/2020	08/31/2021
AM000841	Mettler Balance XP205DR	B043079758	10/16/2020	10/31/2021
AM001288	RH Meter/Thermometer	200470151	08/08/2020	08/08/2022

**As Left Data**

**Specification : 30uL**

	Ch. 1	Ch. 2	Ch. 3	Ch. 4	Ch. 5	Ch. 6	Ch. 7	Ch. 8
	29.7	30.0	29.9	29.8	30.2	30.0	29.8	29.8
	29.8	29.9	29.9	29.9	30.1	29.8	29.7	30.1
	29.8	30.0	30.0	30.0	29.9	29.9	29.7	30.1
	29.8	29.8	30.0	29.9	30.0	29.9	30.0	30.0
Mean (As Is)-mg	29.775	29.925	29.95	29.9	30.05	29.9	29.8	30
Z- Factor	1.0031	1.0031	1.0031	1.0031	1.0031	1.0031	1.0031	1.0031
Mean Corrected-uL	29.867	30.018	30.043	29.993	30.143	29.993	29.892	30.093
Target	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Accuracy (% Diff)	0.443	0.060	0.143	0.023	0.477	0.023	0.360	0.310
Inaccuracy Tolerance	<=3	<=3	<=3	<=3	<=3	<=3	<=3	<=3
Accuracy Summary	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
SD Corrected	0.050	0.096	0.058	0.082	0.129	0.082	0.142	0.142
Precision (%CV)	0.167	0.320	0.193	0.273	0.428	0.273	0.475	0.472

Imprecision Tolerance	<=1	<=1	<=1	<=1	<=1	<=1	<=1	<=1
Imprecision Summary	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Test Summary	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

**Specification : 300uL**

	Ch. 1	Ch. 2	Ch. 3	Ch. 4	Ch. 5	Ch. 6	Ch. 7	Ch. 8
	298.5	298.5	298.2	298.3	298.5	299.1	298.5	298.4
	298.7	298.3	298.1	298.5	298.6	299.3	298.3	298.0
	298.8	298.9	298.1	298.5	298.4	298.7	298.5	298.4
	298.2	298.7	298.1	298.2	299.0	298.5	298.7	298.2
Mean (As Is)-mg	298.55	298.6	298.125	298.375	298.625	298.9	298.5	298.25
Z- Factor	1.0031	1.0031	1.0031	1.0031	1.0031	1.0031	1.0031	1.0031
Mean Corrected-uL	299.475	299.526	299.049	299.3	299.551	299.827	299.425	299.175
Target	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0
Accuracy (% Diff)	0.175	0.158	0.317	0.233	0.150	0.058	0.192	0.275
Inaccuracy Tolerance	<=0.6	<=0.6	<=0.6	<=0.6	<=0.6	<=0.6	<=0.6	<=0.6
Accuracy Summary	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
SD Corrected	0.266	0.259	0.050	0.150	0.264	0.366	0.164	0.192
Precision (%CV)	0.089	0.086	0.017	0.050	0.088	0.122	0.055	0.064
Imprecision Tolerance	<=0.3	<=0.3	<=0.3	<=0.3	<=0.3	<=0.3	<=0.3	<=0.3
Imprecision Summary	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Test Summary	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

**Calibration Notes:**

This report serves as report toward compliance with ISO Standards and other regulatory requirements. This pipette was calibrated gravimetrically using our company internal Standard Operating Procedures. This report certifies that this pipette met the manufacturer's specification on the date shown here for the calibration date. The calibration of the balance and standard weights are traceable to NIST. The gravimetric data was measured in mg. or g. and converted to uL or mL using the correction factor from ISO 8655 Standard and accounted for density of distilled water. The Pass/Fail decision reported in this report has not been accounted for measurement uncertainty. This report shall not be reproduced except in full without written permission from our company.

Certificate ID No  
PID

CAL-M006960  
AM001580

Certificate Date  
Calibration Done By

02/05/2021  
Kaushika Banerjee