

FLOW LINEARITY and ACCURACY REPORT

ACQUISITION INFORMATION

System Name: Alliance_1	Acquired By: AllianceSQT
Processing Method: Flow Rate Lin Acc PM	Project Name: WPPL
Result Set Id: 3641	Sample Kit 1 Lot Number: W04040902
Sample Set Id: 3158	Sample Kit 1 Exp. Date: 7/3/2021 12:00:00 AM SGT
Sample Set Name: Flow Rate Lin Acc SSM	Column Serial Number: 01893724834095
Sample Set Start Date: 2/12/2019 3:30:19 PM SGT	

TEST DESCRIPTION

Flow rate linearity is determined by injecting a Uracil solution (which elutes in the void volume) and varying the flow rate. The plot generated is the plot of 1/void time versus flow rate (where void time = Uracil retention time). The flow rate linearity coefficient of determination (R^2) must be $R^2 \geq 0.90$ to pass.

Flow rate accuracy is calculated by dividing the y-intercept by the slope and multiplying by 1000 (to convert from mL to uL). The Flow rate accuracy passes when the result is ≤ 100 uL.

Flow Linearity and Accuracy Results

	FlowLinearity R^2 Specification	FlowLinearity R^2	FlowLinearity R^2 Pass/Fail	FlowAccuracy Specification	Flow Accuracy	FlowAccuracy Pass/Fail
1	$R^2 \geq 0.90$	0.997	PASS	≤ 100 ul	146.4	FAIL

Certification

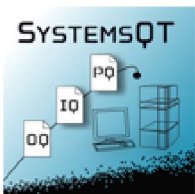
Comments

The undersigned performer attests that the values recorded and calculated above are accurate and complete.

Performer _____ Date _____
Signature

The undersigned reviewer accepts that the values recorded and calculated above are accurate and complete.

Reviewer _____ Date _____
Signature



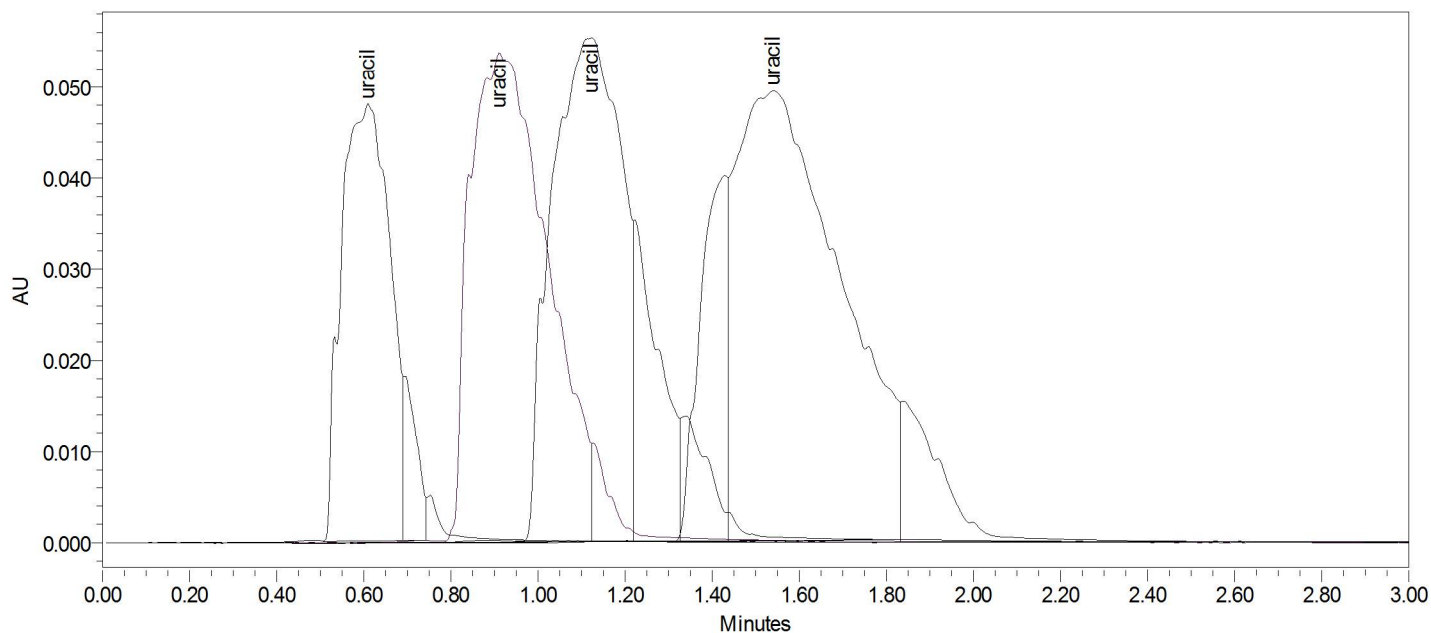
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Chromatogram Overlay



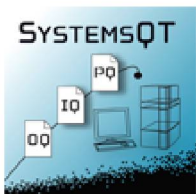
— Sample Name: Uracil 0.5 mL/min
— Sample Name: Uracil 1.5 mL/min
— Sample Name: Uracil 1.0 mL/min
— Sample Name: Uracil 0.75 mL/min

Flow Rate Linearity Results Table Peak: uracil

	SampleName	1/ (void time)	Flowrate ml/min	Level	Channel Id	Result Id
1	Uracil 0.5 mL/min	0.649	0.50	1	3162	3644
2	Uracil 0.75 mL/min	0.891	0.75	2	3167	3645
3	Uracil 1.0 mL/min	1.097	1.00	3	3171	3646
4	Uracil 1.5 mL/min	1.638	1.50	4	3175	3647

Flow Linearity and Accuracy Summary Results

	FlowLinearityR^2	Flow Accuracy
1	0.997	146.4



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Area Calibration Summary

	Fit Type	Processing Method	Slope	Y-Intercept	R^2
1	Linear (1st Order)	Flow Rate Lin Acc PM	9.86e-001	1.44e-001	0.997

Flow Rate (ml/min)

Accuracy Calculation: **Flow rate Accuracy = |Y intercept/Slope| * 1000**

Flowrate Accuracy= | 0.1443 / 0.9860 | * 1000 = 146.4