

DETECTOR LINEARITY & SENSITIVITY REPORT

ACQUISITION INFORMATION

System Name: IClass_BSM_FTN_FLR
Project Path: SQT_E_BSM_FTN_FLR
Processing Method: Detector Height PM, Detector Area PM
Sample Kit 1 Expiration Date: 28.02.2020 00:00:00 SGT
Sample Kit 1 Lot Number: 700002753
Report Method: Detector Lin and Sens RM
Sample Set Name: Detector Lin SSM

Acquired By: hzluo
Column Serial Number: 03323902435101
Sample Set Id: 3215
Result Set Id: 3656

The Detector Linearity and Sensitivity test verifies that the detector has a linear response within the detector's linear range. A series of Anthracene standards at different concentrations using a constant injection volume are injected. The Coefficient of Determination (R^2) for each curve is used to measure detector linearity. Detector height and area sensitivity is determined by dividing the height and area by the amount for each injection.

The Detector Linearity and Sensitivity Test passes only when all four (4) expected Anthracene peaks are identified, linearity test returns an R^2 result of ≥ 0.990 , and sensitivity testing returns a %RSD result of $\leq 5.0\%$.

Results are rounded to the same precision as displayed by the acceptance criterion prior to comparing against the specification.

Detector Area Linearity

	Area Curve R^2 Specification	Area Curve R^2	Area Curve R^2 Pass/Fail
1	≥ 0.990	1.000	PASS

Detector Area Sensitivity

	Area Sensitivity %RSD Specification	Area %RSD Sensitivity	Area Sensitivity Pass/Fail
1	≤ 5.0	0.2	PASS

Detector Height Linearity

	Height Curve R^2 Specification	Height Curve R^2	Height Curve R^2 Pass/Fail
1	≥ 0.990	1.000	PASS

Detector Height Sensitivity

	Height Sensitivity %RSD Specification	Height %RSD Sensitivity	Height Sensitivity Pass/Fail
1	≤ 5.0	0.5	PASS

Certification

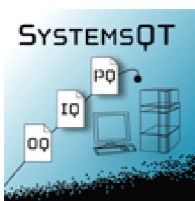
Comments _____

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

Performer _____ Date _____
Signature

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

Reviewer _____ Date _____
Signature



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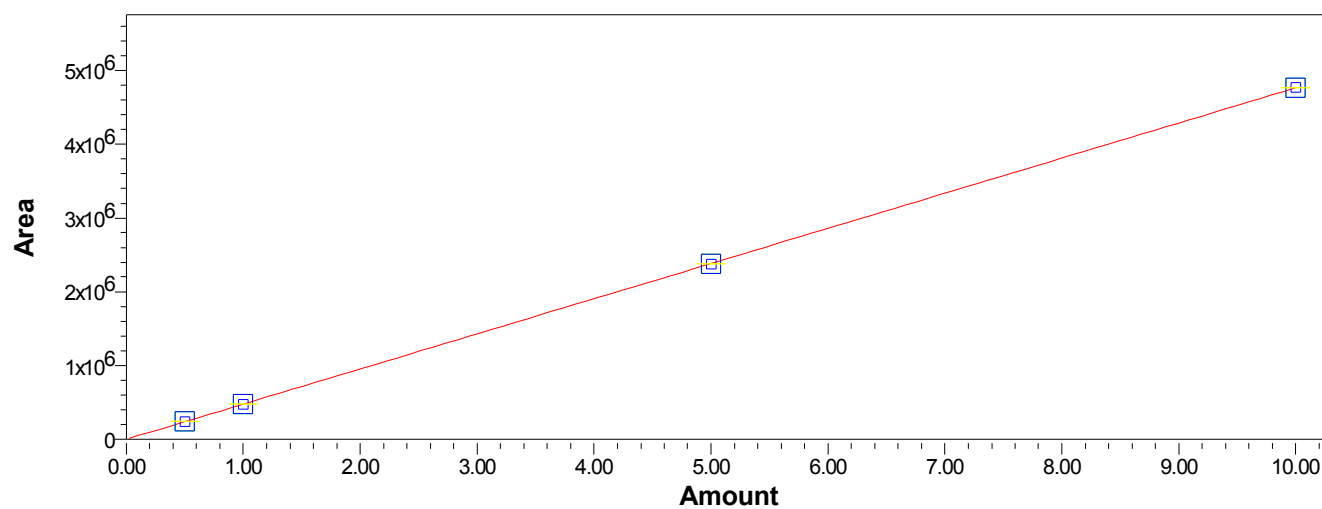
System Name: IClass_BSM_FTN_FLR

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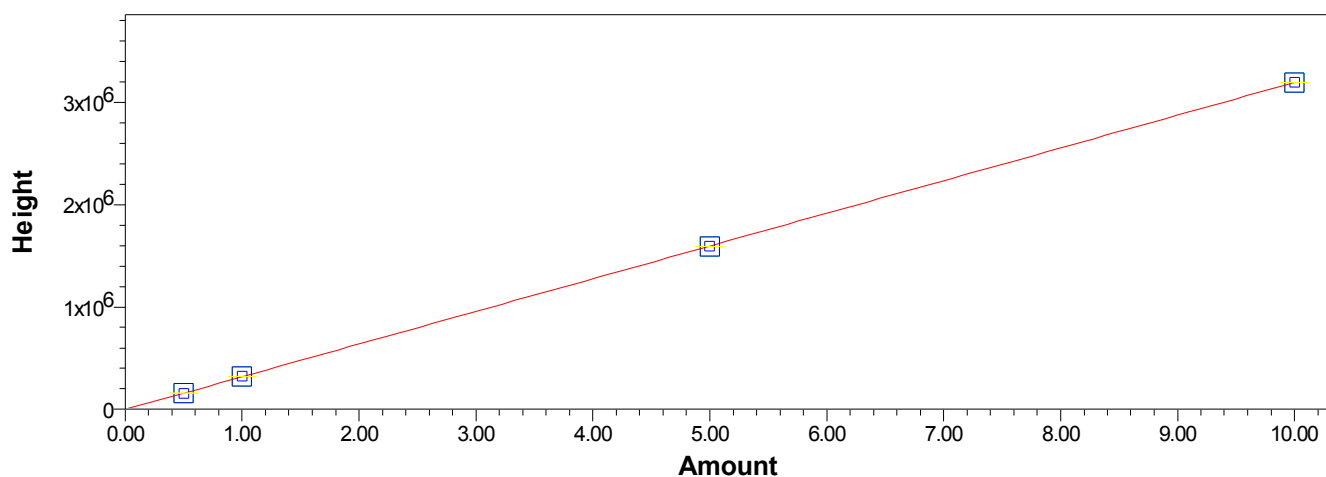
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Calibration Plot
Area v.s. Amount



Calibration Plot
Height v.s. Amount



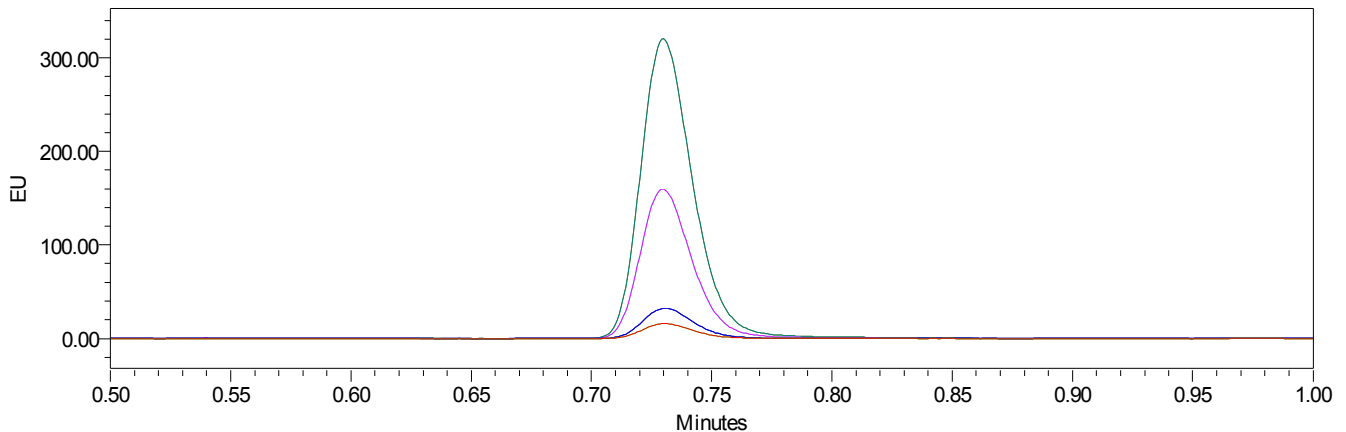
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Detector Linearity Overlay Chromatograms**Detector Area Sensitivity Results**

	Vial	Peak Name	Sample Name	Level	Area (礦*sec)	Amount	Area Sensitivity	Result Id
1	2:F,1	Anthracene	Anthracene 0.5 pg/ul	1	237379	0.50	474758.3	3661
2	2:F,3	Anthracene	Anthracene 1.0 pg/ul	2	476951	1.00	476951.2	3663
3	2:F,5	Anthracene	Anthracene 5.0 pg/ul	3	2379357	5.00	475871.4	3665
4	2:F,7	Anthracene	Anthracene 10.0 pg/ul	4	4767487	10.00	476748.7	3667

Detector Height Sensitivity Results

	Vial	Peak Name	Sample Name	Level	Height (礦)	Amount	Height Sensitivity	Result Id
1	2:F,1	Anthracene	Anthracene 0.5 pg/ul	1	158657	0.50	317313.1	3662
2	2:F,3	Anthracene	Anthracene 1.0 pg/ul	2	321149	1.00	321149.5	3664
3	2:F,5	Anthracene	Anthracene 5.0 pg/ul	3	1593384	5.00	318676.8	3666
4	2:F,7	Anthracene	Anthracene 10.0 pg/ul	4	3195752	10.00	319575.2	3668

Detector Area & Height Sensitivity Summary Results

	Area % RSD Sensitivity		Height % RSD Sensitivity
1	0.2	1	0.5