



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)	% Recovery
LRB	Lab Reagent Blank	7/31/2019	8/1/2019	<0.15	
LFB	Lab Fortified Blank (True value = 0.600)	7/31/2019	8/1/2019	0.59	98
AB39924	Kunkel Beach at Ouabache S P	7/29/2019	8/1/2019	<0.15	
AB39925	Lost Bridge West S R A	7/29/2019	8/1/2019	<0.15	
AB39926	Mississinewa Lake Miami S R A	7/29/2019	8/1/2019	<0.15	
AB39926MS	Mississinewa (Matrix Spike, True Value = 0.60)	7/31/2019	8/1/2019	0.63	104
AB39926MSD	Mississinewa (Matrix Spike Duplicate, True Value = 0.60)	7/31/2019	8/1/2019	0.66	109
AB39927	Potato Creek S P	7/29/2019	8/1/2019	<0.15	
AB39928	Lost Bridge West S R A Field Dup.	7/29/2019	8/1/2019	<0.15	
AB39929	Field Blank	7/29/2019	8/1/2019	<0.15	

Test Information

Request: 8/1/2019 7:51:24 AM
Date: 8/1/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
CYL Std 0	CYLINDROSPERMOPSIN	0.937 Abs	0.000 µg/L	R^2=0.99897	0.000
CYL Std 0	CYLINDROSPERMOPSIN	0.935 Abs [0.9360] {0.2 CV}	0.000 µg/L [0.000]	R^2=0.99897	0.000
CYL Std 1	CYLINDROSPERMOPSIN	0.780 Abs	0.041 µg/L	R^2=0.99897	0.050
CYL Std 1	CYLINDROSPERMOPSIN	0.763 Abs [0.7715] {1.6 CV}	0.048 µg/L [0.045] {11.1}	R^2=0.99897	0.050
CYL Std 2	CYLINDROSPERMOPSIN	0.673 Abs	0.096 µg/L	R^2=0.99897	0.100
CYL Std 2	CYLINDROSPERMOPSIN	0.643 Abs [0.6580] {3.2 CV}	0.117 µg/L [0.106] {13.9}	R^2=0.99897	0.100
CYL Std 3	CYLINDROSPERMOPSIN	0.494 Abs	0.271 µg/L	R^2=0.99897	0.250
CYL Std 3	CYLINDROSPERMOPSIN	0.505 Abs [0.4995] {1.6 CV}	0.255 µg/L [0.263] {4.3}	R^2=0.99897	0.250
CYL Std 4	CYLINDROSPERMOPSIN	0.385 Abs	0.482 µg/L	R^2=0.99897	0.500
CYL Std 4	CYLINDROSPERMOPSIN	0.398 Abs [0.3915] {2.3 CV}	0.450 µg/L [0.466] {4.9}	R^2=0.99897	0.500
CYL Std 5	CYLINDROSPERMOPSIN	0.266 Abs	0.949 µg/L	R^2=0.99897	1.000
CYL Std 5	CYLINDROSPERMOPSIN	0.249 Abs [0.2575] {4.7 CV}	1.055 µg/L [1.002] {7.5}	R^2=0.99897	1.000
CYL Std 6	CYLINDROSPERMOPSIN	0.167 Abs	1.884 µg/L	R^2=0.99897	2.000
CYL Std 6	CYLINDROSPERMOPSIN	0.147 Abs [0.1570] {9.0 CV}	> 2.000 µg/L [1.884]		2.000
CYL LRB	CYLINDROSPERMOPSIN	0.877 Abs	0.011 µg/L		0 +- 0.4
CYL LRB	CYLINDROSPERMOPSIN	0.883 Abs [0.8800] {0.5 CV}	0.009 µg/L [0.010] {14.1}		0 +- 0.4
CYL QCS	CYLINDROSPERMOPSIN	0.307 Abs	0.743 µg/L		0.75 +- 0.05
CYL QCS	CYLINDROSPERMOPSIN	0.324 Abs [0.3155] {3.8 CV}	0.674 µg/L [0.709] {6.9}		0.75 +- 0.05
CYL LFB 1	CYLINDROSPERMOPSIN	0.357 Abs	0.561 µg/L		0.050 - 2
CYL LFB 1	CYLINDROSPERMOPSIN	0.340 Abs [0.3485] {3.4 CV}	0.617 µg/L [0.589] {6.7}		0.050 - 2
AB39924	CYLINDROSPERMOPSIN	0.861 Abs	0.015 µg/L	LOW	0.050 - 2
AB39924	CYLINDROSPERMOPSIN	0.846 Abs [0.8535] {1.2 CV}	0.019 µg/L [0.017] {16.6}	LOW [LOW]	0.050 - 2
AB39925	CYLINDROSPERMOPSIN	0.874 Abs	0.011 µg/L	LOW	0.050 - 2
AB39925	CYLINDROSPERMOPSIN	0.877 Abs [0.8755] {0.2 CV}	0.011 µg/L [0.011] {0.0}	LOW [LOW]	0.050 - 2
AB39926	CYLINDROSPERMOPSIN	0.883 Abs	0.009 µg/L	LOW	0.050 - 2
AB39926	CYLINDROSPERMOPSIN	0.904 Abs [0.8935] {1.7 CV}	0.005 µg/L [0.007] {40.4}	LOW [LOW]	0.050 - 2
AB39926MS	CYLINDROSPERMOPSIN	0.346 Abs	0.596 µg/L		0.050 - 2
AB39926MS	CYLINDROSPERMOPSIN	0.327 Abs [0.3365] {4.0 CV}	0.663 µg/L [0.630] {7.5}		0.050 - 2
AB39926MSD	CYLINDROSPERMOPSIN	0.328 Abs	0.659 µg/L		0.050 - 2
AB39926MSD	CYLINDROSPERMOPSIN	0.326 Abs [0.3270] {0.4 CV}	0.667 µg/L [0.663] {0.9}		0.050 - 2
AB39927	CYLINDROSPERMOPSIN	0.873 Abs	0.012 µg/L	LOW	0.050 - 2
AB39927	CYLINDROSPERMOPSIN	0.871 Abs [0.8720] {0.2 CV}	0.012 µg/L [0.012] {0.0}	LOW [LOW]	0.050 - 2
AB39928	CYLINDROSPERMOPSIN	0.857 Abs	0.016 µg/L	LOW	0.050 - 2
AB39928	CYLINDROSPERMOPSIN	0.882 Abs [0.8695] {2.0 CV}	0.009 µg/L [0.013] {39.6}	LOW [LOW]	0.050 - 2
AB39929	CYLINDROSPERMOPSIN	0.882 Abs	0.009 µg/L	LOW	0.050 - 2
AB39929	CYLINDROSPERMOPSIN	0.863 Abs [0.8725] {1.5 CV}	0.014 µg/L [0.012] {30.7}	LOW [LOW]	0.050 - 2

Note

Signature

David Jordan

David Jordan 8/1/2019



CYLINDROSPERMOPSIN - Assay Calibration Report

Assay Information

Assay Name: CYLINDROSPERMOPSIN
Version: 1
Temperature: Room Temperature
Last Modified By: Security disabled
Units: µg/L
Assay Description: PN 522011
Assay Substances: Controls:

CYL LRB
CYL QCS

Standards:

CYL Std 0, Concentration = 0.000, Minimum number to use: 2
CYL Std 1, Concentration = 0.050, Minimum number to use: 2
CYL Std 2, Concentration = 0.100, Minimum number to use: 2
CYL Std 3, Concentration = 0.250, Minimum number to use: 2
CYL Std 4, Concentration = 0.500, Minimum number to use: 2
CYL Std 5, Concentration = 1.000, Minimum number to use: 2
CYL Std 6, Concentration = 2.000, Minimum number to use: 2

Curve valid interval: 7 days 0 hours

Axis Mode: Y = Abs, X = Log(Conc)

Assay Mode: 4-Parameter Logistic Weight by:None
Well Type: Flat bottom
Last Modified On: 12/6/2017 9:32:58 AM
Normal: 0.050 - 2.000
of decimals: 3

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position	
8/1/2019 7:51:24 AM					
CYL Std 0	0.937 Abs	0.000 µg/L	R^2=0.99897	RK1:23->A01@2	
CYL Std 0	0.935 Abs [0.9360] {0.2 CV}	0.000 µg/L [0.000]	R^2=0.99897	RK1:23->B01@2	
CYL Std 1	0.780 Abs	0.041 µg/L	R^2=0.99897	RK1:24->C01@2	
CYL Std 1	0.763 Abs [0.7715] {1.6 CV}	0.048 µg/L [0.045] {11.1 CV}	R^2=0.99897	RK1:24->D01@2	
CYL Std 2	0.673 Abs	0.096 µg/L	R^2=0.99897	RK1:25->E01@2	
CYL Std 2	0.643 Abs [0.6580] {3.2 CV}	0.117 µg/L [0.106] {13.9 CV}	R^2=0.99897	RK1:25->F01@3	
CYL Std 3	0.494 Abs	0.271 µg/L	R^2=0.99897	RK1:26->G01@3	
CYL Std 3	0.505 Abs [0.4995] {1.6 CV}	0.255 µg/L [0.263] {4.3 CV}	R^2=0.99897	RK1:26->H01@3	
CYL Std 4	0.385 Abs	0.482 µg/L	R^2=0.99897	RK1:27->A02@2	
CYL Std 4	0.398 Abs [0.3915] {2.3 CV}	0.450 µg/L [0.466] {4.9 CV}	R^2=0.99897	RK1:27->B02@2	
CYL Std 5	0.266 Abs	0.949 µg/L	R^2=0.99897	RK1:28->C02@2	
CYL Std 5	0.249 Abs [0.2575] {4.7 CV}	1.055 µg/L [1.002] {7.5 CV}	R^2=0.99897	RK1:28->D02@2	
CYL Std 6	0.167 Abs	1.884 µg/L	R^2=0.99897	RK1:29->E02@2	
CYL Std 6	0.147 Abs [0.1570] {9.0 CV}	> 2.000 µg/L [1.884]		RK1:29->F02@3	

8/1/2019 7:51:24 AM					
CYL LRB	0.877 Abs	0.011 µg/L		RK1:31->G02@3	
CYL LRB	0.883 Abs [0.8800] {0.5 CV}	0.009 µg/L [0.010] {14.1 CV}		RK1:31->H02@3	
CYL QCS	0.307 Abs	0.743 µg/L		RK1:30->A03@2	
CYL QCS	0.324 Abs [0.3155] {3.8 CV}	0.674 µg/L [0.709] {6.9 CV}		RK1:30->B03@2	

Statistic					
CYL Std 0 [MEAN]	0.9360	0.0000			
CYL Std 0 [SD]	0.0014	0.0000			
CYL Std 0 [%CV]	0.1511	0.0000			
CYL Std 1 [MEAN]	0.7715	0.0445			
CYL Std 1 [SD]	0.0120	0.0049			
CYL Std 1 [%CV]	1.5581	11.1230			
CYL Std 1 [%DIFF]		-11.0000			
CYL Std 2 [MEAN]	0.6580	0.1065			
CYL Std 2 [SD]	0.0212	0.0148			
CYL Std 2 [%CV]	3.2239	13.9429			
CYL Std 2 [%DIFF]		6.5000			
CYL Std 3 [MEAN]	0.4995	0.2630			
CYL Std 3 [SD]	0.0078	0.0113			
CYL Std 3 [%CV]	1.5572	4.3018			
CYL Std 3 [%DIFF]		5.2000			
CYL Std 4 [MEAN]	0.3915	0.4660			

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 4 [SD]	0.0092	0.0226		
CYL Std 4 [%CV]	2.3480	4.8557		
CYL Std 4 [%DIFF]		-6.8000		
CYL Std 5 [MEAN]	0.2575	1.0020		
CYL Std 5 [SD]	0.0120	0.0750		
CYL Std 5 [%CV]	4.6683	7.4804		
CYL Std 5 [%DIFF]		0.2000		
CYL Std 6 [MEAN]	0.1570			
CYL Std 6 [SD]	0.0141			
CYL Std 6 [%CV]	9.0077			
CYL LRB [MEAN]	0.8800	0.0100		
CYL LRB [SD]	0.0042	0.0014		
CYL LRB [%CV]	0.4821	14.1421		
CYL QCS [MEAN]	0.3155	0.7085		
CYL QCS [SD]	0.0120	0.0488		
CYL QCS [%CV]	3.8101	6.8864		
CYL QCS [%DIFF]		-5.5333		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
Weight: NONE
A = 0.93807
B = 0.78203
C = 0.33823
D = -0.034187
R2 coef = 0.99892

