



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB48399	Kunkel Beach @ Ouabache State Park	8/30/2021	8/31/2021	< 0.15
AB48400	Chain O'Lakes SP	8/30/2021	8/31/2021	< 0.15
AB48401	Potato Creek State Park	8/30/2021	8/31/2021	< 0.15
AB48402	Lost Bridge West SRA	8/30/2021	8/31/2021	< 0.15
AB48403	Mississinewa Lake Miami SRA	8/30/2021	8/31/2021	< 0.15
AB48404	Ferdinand State Forest Lake	8/30/2021	8/31/2021	< 0.15
AB48405	Patoka SRA Beach	8/30/2021	8/31/2021	< 0.15
AB48406	Lost Bridge West SRA (Field Dup)	8/30/2021	8/31/2021	< 0.15
AB48407	Field Blank	8/30/2021	8/31/2021	< 0.15

Test Report (by Request)

Test Information

Request: 8/31/2021 6:30:36 PM
Date: 8/31/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	0.949 Abs	0.000 µg/L	R ² =0.99880, 100.5			M21B4676
CYL Std 0	CYLINDROSPERMOPSIN	0.938 Abs [0.9435] {0.8 C	0.003 µg/L [0.002]	R ² =0.99880, 99.36			M21B4676
CYL Std 1	CYLINDROSPERMOPSIN	0.830 Abs	0.043 µg/L	R ² =0.99880, 87.92			M21B4676
CYL Std 1	CYLINDROSPERMOPSIN	0.829 Abs [0.8295] {0.1 C	0.043 µg/L [0.043]	R ² =0.99880, 87.81			M21B4676
CYL Std 2	CYLINDROSPERMOPSIN	0.708 Abs	0.104 µg/L	R ² =0.99880, 75.00			M21B4676
CYL Std 2	CYLINDROSPERMOPSIN	0.701 Abs [0.7045] {0.7 C	0.108 µg/L [0.106]	R ² =0.99880, 74.25			M21B4676
CYL Std 3	CYLINDROSPERMOPSIN	0.525 Abs	0.257 µg/L	R ² =0.99880, 55.61			M21B4676
CYL Std 3	CYLINDROSPERMOPSIN	0.519 Abs [0.5220] {0.8 C	0.265 µg/L [0.261]	R ² =0.99880, 54.97			M21B4676
CYL Std 4	CYLINDROSPERMOPSIN	0.401 Abs	0.455 µg/L	R ² =0.99880, 42.47			M21B4676
CYL Std 4	CYLINDROSPERMOPSIN	0.382 Abs [0.3915] {3.4 C	0.498 µg/L [0.477]	R ² =0.99880, 40.46			M21B4676
CYL Std 5	CYLINDROSPERMOPSIN	0.266 Abs	0.932 µg/L	R ² =0.99880, 28.17			M21B4676
CYL Std 5	CYLINDROSPERMOPSIN	0.252 Abs [0.2590] {3.8 C	1.019 µg/L [0.975]	R ² =0.99880, 26.65			M21B4676
CYL Std 6	CYLINDROSPERMOPSIN	0.162 Abs	> 2.000 µg/L	17.161 %Abs			M21B4676
CYL Std 6	CYLINDROSPERMOPSIN	0.162 Abs [0.1620] {0.0 C	> 2.000 µg/L	17.161 %Abs			M21B4676
CYL QCS	CYLINDROSPERMOPSIN	0.315 Abs	0.702 µg/L	33.369 %Abs			M21B4676
CYL QCS	CYLINDROSPERMOPSIN	0.319 Abs [0.3170] {0.9 C	0.687 µg/L [0.694]	33.792 %Abs [33.5			M21B4676

Note

Signature

David Jordan

David Jordan 8/31/2021

Test Report (by Request)

Test Information

Request: 8/31/2021 6:31:41 PM
Date: 8/31/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	CYLINDROSPERMOPSIN	0.957 Abs	0.000 µg/L	Low, 101.377 %Abs		0.050 - 2.000	M21B467f
LRB	CYLINDROSPERMOPSIN	0.926 Abs [0.9415] {2.3 C	0.007 µg/L [0.004]	Low, 98.093 %Abs		0.050 - 2.000	M21B467f
LFB (CYL)	CYLINDROSPERMOPSIN	0.353 Abs	0.575 µg/L	37.394 %Abs		0.050 - 2.000	M21B467f
LFB (CYL)	CYLINDROSPERMOPSIN	0.343 Abs [0.3480] {2.0 C	0.605 µg/L [0.590]	36.335 %Abs [36.8		0.050 - 2.000	M21B467f
AB48399	CYLINDROSPERMOPSIN	0.889 Abs	0.020 µg/L	Low, 94.174 %Abs		0.050 - 2.000	M21B467f
AB48399	CYLINDROSPERMOPSIN	0.873 Abs [0.8810] {1.3 C	0.026 µg/L [0.023]	Low, 92.479 %Abs		0.050 - 2.000	M21B467f
AB48400	CYLINDROSPERMOPSIN	0.879 Abs	0.023 µg/L	Low, 93.114 %Abs		0.050 - 2.000	M21B467f
AB48400	CYLINDROSPERMOPSIN	0.890 Abs [0.8845] {0.9 C	0.019 µg/L [0.021]	Low, 94.280 %Abs		0.050 - 2.000	M21B467f
AB48401	CYLINDROSPERMOPSIN	0.952 Abs	0.000 µg/L	Low, 100.847 %Abs		0.050 - 2.000	M21B467f
AB48401	CYLINDROSPERMOPSIN	0.905 Abs [0.9285] {3.6 C	0.014 µg/L [0.007]	Low, 95.869 %Abs		0.050 - 2.000	M21B467f
AB48401MS	CYLINDROSPERMOPSIN	0.345 Abs	0.599 µg/L	36.547 %Abs		0.050 - 2.000	M21B467f
AB48401MS	CYLINDROSPERMOPSIN	0.333 Abs [0.3390] {2.5 C	0.637 µg/L [0.618]	35.275 %Abs [35.9		0.050 - 2.000	M21B467f
AB48401MSD	CYLINDROSPERMOPSIN	0.329 Abs	0.651 µg/L	34.852 %Abs		0.050 - 2.000	M21B467f
AB48401MSD	CYLINDROSPERMOPSIN	0.331 Abs [0.3300] {0.4 C	0.644 µg/L [0.648]	35.064 %Abs [34.9		0.050 - 2.000	M21B467f
AB48402	CYLINDROSPERMOPSIN	0.899 Abs	0.016 µg/L	Low, 95.233 %Abs		0.050 - 2.000	M21B467f
AB48402	CYLINDROSPERMOPSIN	0.919 Abs [0.9090] {1.6 C	0.009 µg/L [0.013]	Low, 97.352 %Abs		0.050 - 2.000	M21B467f
AB48403	CYLINDROSPERMOPSIN	0.932 Abs	0.005 µg/L	Low, 98.729 %Abs		0.050 - 2.000	M21B467f
AB48403	CYLINDROSPERMOPSIN	0.893 Abs [0.9125] {3.0 C	0.018 µg/L [0.011]	Low, 94.597 %Abs		0.050 - 2.000	M21B467f
AB48404	CYLINDROSPERMOPSIN	0.921 Abs	0.009 µg/L	Low, 97.564 %Abs		0.050 - 2.000	M21B467f
AB48404	CYLINDROSPERMOPSIN	0.904 Abs [0.9125] {1.3 C	0.014 µg/L [0.012]	Low, 95.763 %Abs		0.050 - 2.000	M21B467f
AB48405	CYLINDROSPERMOPSIN	0.898 Abs	0.016 µg/L	Low, 95.127 %Abs		0.050 - 2.000	M21B467f
AB48405	CYLINDROSPERMOPSIN	0.895 Abs [0.8965] {0.2 C	0.018 µg/L [0.017]	Low, 94.809 %Abs		0.050 - 2.000	M21B467f
AB48406	CYLINDROSPERMOPSIN	0.900 Abs	0.016 µg/L	Low, 95.339 %Abs		0.050 - 2.000	M21B467f
AB48406	CYLINDROSPERMOPSIN	0.902 Abs [0.9010] {0.2 C	0.015 µg/L [0.015]	Low, 95.551 %Abs		0.050 - 2.000	M21B467f
AB48407	CYLINDROSPERMOPSIN	0.920 Abs	0.009 µg/L	Low, 97.458 %Abs		0.050 - 2.000	M21B467f
AB48407	CYLINDROSPERMOPSIN	0.909 Abs [0.9145] {0.9 C	0.013 µg/L [0.011]	Low, 96.292 %Abs		0.050 - 2.000	M21B467f

Note

Signature

David Jordan

David Jordan 8/31/2021

Assay Information

Assay Name: CYLINDROSPERMOPSIN_
Version: 2
Temperature: Room Temperature
Last Modified By: Security disabled
Units: µg/L
Assay Description: PN 522011
Assay Substances: Controls:

Assay Mode: 4-Parameter Logistic Weight by:None
Well Type: Flat bottom
Last Modified On: 9/30/2020 10:05:41 AM
Normal: 0.050 - 2.000
of decimals: 3
Kit Lot Number: M21B4676

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: 1 days 0 hours
Axis Mode: Y = Abs, X = Log(Conc)

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
8/31/2021 6:30:36 PM				
CYL Std 0	0.949 Abs	0.000 µg/L	R ² =0.99880, 100.530 %Abs	RK1:32->A07@2
CYL Std 0	0.938 Abs [0.9435] {0.8 CV}	0.003 µg/L [0.002] {141.4 CV}	R ² =0.99880, 99.364 %Abs	RK1:32->B07@2
CYL Std 1	0.830 Abs	0.043 µg/L	R ² =0.99880, 87.924 %Abs	RK1:33->C07@2
CYL Std 1	0.829 Abs [0.8295] {0.1 CV}	0.043 µg/L [0.043] {0.0 CV}	R ² =0.99880, 87.818 %Abs	RK1:33->D07@2
CYL Std 2	0.708 Abs	0.104 µg/L	R ² =0.99880, 75.000 %Abs	RK1:34->E07@2
CYL Std 2	0.701 Abs [0.7045] {0.7 CV}	0.108 µg/L [0.106] {2.7 CV}	R ² =0.99880, 74.258 %Abs	RK1:34->F07@3
CYL Std 3	0.525 Abs	0.257 µg/L	R ² =0.99880, 55.614 %Abs	RK1:35->G07@3
CYL Std 3	0.519 Abs [0.5220] {0.8 CV}	0.265 µg/L [0.261] {2.2 CV}	R ² =0.99880, 54.979 %Abs	RK1:35->H07@3
CYL Std 4	0.401 Abs	0.455 µg/L	R ² =0.99880, 42.479 %Abs	RK1:36->A08@2
CYL Std 4	0.382 Abs [0.3915] {3.4 CV}	0.498 µg/L [0.477] {6.4 CV}	R ² =0.99880, 40.466 %Abs	RK1:36->B08@2
CYL Std 5	0.266 Abs	0.932 µg/L	R ² =0.99880, 28.178 %Abs	RK1:37->C08@2
CYL Std 5	0.252 Abs [0.2590] {3.8 CV}	1.019 µg/L [0.975] {6.3 CV}	R ² =0.99880, 26.695 %Abs	RK1:37->D08@2
CYL Std 6	0.162 Abs	> 2.000 µg/L	17.161 %Abs	RK1:38->E08@2
CYL Std 6	0.162 Abs [0.1620] {0.0 CV}	> 2.000 µg/L	17.161 %Abs	RK1:38->F08@3

8/31/2021 6:30:36 PM				
CYL QCS	0.315 Abs	0.702 µg/L	33.369 %Abs	RK1:39->G08@3
CYL QCS	0.319 Abs [0.3170] {0.9 CV}	0.687 µg/L [0.694] {1.5 CV}	33.792 %Abs [33.581 %Abs]	RK1:39->H08@3

Statistic				
CYL Std 0 [MEAN]	0.9435	0.0015		
CYL Std 0 [SD]	0.0078	0.0021		
CYL Std 0 [%CV]	0.8244	141.4214		
CYL Std 1 [MEAN]	0.8295	0.0430		
CYL Std 1 [SD]	0.0007	0.0000		
CYL Std 1 [%CV]	0.0852	0.0000		
CYL Std 1 [%DIFF]		-14.0000		
CYL Std 2 [MEAN]	0.7045	0.1060		
CYL Std 2 [SD]	0.0049	0.0028		
CYL Std 2 [%CV]	0.7026	2.6683		
CYL Std 2 [%DIFF]		6.0000		
CYL Std 3 [MEAN]	0.5220	0.2610		
CYL Std 3 [SD]	0.0042	0.0057		
CYL Std 3 [%CV]	0.8128	2.1674		
CYL Std 3 [%DIFF]		4.4000		
CYL Std 4 [MEAN]	0.3915	0.4765		
CYL Std 4 [SD]	0.0134	0.0304		
CYL Std 4 [%CV]	3.4317	6.3810		
CYL Std 4 [%DIFF]		-4.7000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.2590	0.9755		
CYL Std 5 [SD]	0.0099	0.0615		
CYL Std 5 [%CV]	3.8222	6.3063		
CYL Std 5 [%DIFF]		-2.4500		
CYL Std 6 [MEAN]	0.1620			
CYL Std 6 [SD]	0.0000			
CYL Std 6 [%CV]	0.0000			
CYL QCS [MEAN]	0.3170	0.6945		
CYL QCS [SD]	0.0028	0.0106		
CYL QCS [%CV]	0.8923	1.5272		

Assay Curve

$$y = (A-D)/(1+(x/C)^B) + D$$

Weight: NONE

A = 0.94826

B = 0.98632

C = 0.28845

D = 0.051522

R2 coef = 0.99880

50% = 0.327

