



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC41517	Potato Creek SP - Worster Lake Beach	8/26/2024	8/28/2024	< 0.10
AC41518	Chain O'Lakes SP - Sand Lake Beach	8/26/2024	8/28/2024	< 0.10
AC41519	Mississinewa Lake - Miami SRA Beach	8/26/2024	8/28/2024	< 0.10
AC41520	Salamonie Lake - Lost Bridge West SRA Beach	8/26/2024	8/28/2024	< 0.10
AC41521	Chain O'Lakes SP - Sand Lake Beach (Field Duplicate)	8/26/2024	8/28/2024	< 0.10
AC41522	Field Blank	8/26/2024	8/28/2024	< 0.10
AC41523	Ferdinand State Forest - Ferdinand Lake Beach	8/26/2024	8/28/2024	< 0.10
AC41524	Lincoln SP - Lake Lincoln Beach	8/26/2024	8/28/2024	4.2
AC41525	Patoka Lake - Newton Stewart SRA	8/26/2024	8/28/2024	< 0.10

Test Report (by Request)

Test Information

Request: 8/28/2024 2:29:35 PM
 Date: 8/28/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	1.476 Abs	0.000 µg/L	R^2=0.99922, 100.0		0.000	Kit:240520
CYL Std 0	CYLINDROSPERMOPSIN	1.448 Abs [1.4620] {1.4 C	0.001 µg/L [0.001]	R^2=0.99922, 99.04		0.000	Kit:240520
CYL Std 1	CYLINDROSPERMOPSIN	1.134 Abs	0.049 µg/L	R^2=0.99922, 77.56		0.050	Kit:240520
CYL Std 1	CYLINDROSPERMOPSIN	1.111 Abs [1.1225] {1.4 C	0.054 µg/L [0.052]	R^2=0.99922, 75.95		0.050	Kit:240520
CYL Std 2	CYLINDROSPERMOPSIN	0.944 Abs	0.106 µg/L	R^2=0.99922, 64.56		0.100	Kit:240520
CYL Std 2	CYLINDROSPERMOPSIN	0.991 Abs [0.9675] {3.4 C	0.089 µg/L [0.098]	R^2=0.99922, 67.78		0.100	Kit:240520
CYL Std 3	CYLINDROSPERMOPSIN	0.715 Abs	0.236 µg/L	R^2=0.99922, 48.90		0.250	Kit:240520
CYL Std 3	CYLINDROSPERMOPSIN	0.659 Abs [0.6870] {5.8 C	0.286 µg/L [0.261]	R^2=0.99922, 45.07		0.250	Kit:240520
CYL Std 4	CYLINDROSPERMOPSIN	0.544 Abs	0.432 µg/L	R^2=0.99922, 37.20		0.500	Kit:240520
CYL Std 4	CYLINDROSPERMOPSIN	0.504 Abs [0.5240] {5.4 C	0.503 µg/L [0.468]	R^2=0.99922, 34.47		0.500	Kit:240520
CYL Std 5	CYLINDROSPERMOPSIN	0.333 Abs	1.077 µg/L	R^2=0.99922, 22.77		1.000	Kit:240520
CYL Std 5	CYLINDROSPERMOPSIN	0.325 Abs [0.3290] {1.7 C	1.124 µg/L [1.101]	R^2=0.99922, 22.23		1.000	Kit:240520
CYL Std 6	CYLINDROSPERMOPSIN	0.237 Abs	1.940 µg/L	R^2=0.99922, 16.21		2.000	Kit:240520
CYL Std 6	CYLINDROSPERMOPSIN	0.242 Abs [0.2395] {1.5 C	1.871 µg/L [1.906]	R^2=0.99922, 16.55		2.000	Kit:240520
CYL QCS	CYLINDROSPERMOPSIN	0.398 Abs	0.784 µg/L	27.223 %Abs			Kit:240520
CYL QCS	CYLINDROSPERMOPSIN	0.390 Abs [0.3940] {1.4 C	0.813 µg/L [0.799]	26.676 %Abs [26.9			Kit:240520

Note

Signature _____

Test Report (by Request)

Test Information

Request: 8/28/2024 2:30:51 PM
Date: 8/28/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (CYL)	CYLINDROSPERMOPSIN	1.342 Abs	0.012 µg/L	Low, 91.792 %Abs		0.050 - 2.000	Kit:240520
LRB (CYL)	CYLINDROSPERMOPSIN	1.348 Abs [1.3450] {0.3 C	0.011 µg/L [0.012]	Low, 92.202 %Abs		0.050 - 2.000	Kit:240520
LFB (CYL)	CYLINDROSPERMOPSIN	0.428 Abs	0.686 µg/L	29.275 %Abs		0.050 - 2.000	Kit:240520
LFB (CYL)	CYLINDROSPERMOPSIN	0.429 Abs [0.4285] {0.2 C	0.683 µg/L [0.685]	29.343 %Abs [29.3		0.050 - 2.000	Kit:240520
AC41517	CYLINDROSPERMOPSIN	1.323 Abs	0.014 µg/L	Low, 90.492 %Abs		0.050 - 2.000	Kit:240520
AC41517	CYLINDROSPERMOPSIN	1.347 Abs [1.3350] {1.3 C	0.011 µg/L [0.013]	Low, 92.134 %Abs		0.050 - 2.000	Kit:240520
AC41517MS	CYLINDROSPERMOPSIN	0.434 Abs	0.669 µg/L	29.685 %Abs		0.050 - 2.000	Kit:240520
AC41517MS	CYLINDROSPERMOPSIN	0.421 Abs [0.4275] {2.2 C	0.708 µg/L [0.689]	28.796 %Abs [29.2		0.050 - 2.000	Kit:240520
AC41517MSD	CYLINDROSPERMOPSIN	0.421 Abs	0.708 µg/L	28.796 %Abs		0.050 - 2.000	Kit:240520
AC41517MSD	CYLINDROSPERMOPSIN	0.424 Abs [0.4225] {0.5 C	0.698 µg/L [0.703]	29.001 %Abs [28.8		0.050 - 2.000	Kit:240520
AC41518	CYLINDROSPERMOPSIN	1.291 Abs	0.019 µg/L	Low, 88.304 %Abs		0.050 - 2.000	Kit:240520
AC41518	CYLINDROSPERMOPSIN	1.325 Abs [1.3080] {1.8 C	0.014 µg/L [0.017]	Low, 90.629 %Abs		0.050 - 2.000	Kit:240520
AC41519	CYLINDROSPERMOPSIN	1.319 Abs	0.015 µg/L	Low, 90.219 %Abs		0.050 - 2.000	Kit:240520
AC41519	CYLINDROSPERMOPSIN	1.328 Abs [1.3235] {0.5 C	0.014 µg/L [0.015]	Low, 90.834 %Abs		0.050 - 2.000	Kit:240520
AC41520	CYLINDROSPERMOPSIN	1.335 Abs	0.013 µg/L	Low, 91.313 %Abs		0.050 - 2.000	Kit:240520
AC41520	CYLINDROSPERMOPSIN	1.346 Abs [1.3405] {0.6 C	0.011 µg/L [0.012]	Low, 92.066 %Abs		0.050 - 2.000	Kit:240520
AC41521	CYLINDROSPERMOPSIN	1.313 Abs	0.016 µg/L	Low, 89.808 %Abs		0.050 - 2.000	Kit:240520
AC41521	CYLINDROSPERMOPSIN	1.309 Abs [1.3110] {0.2 C	0.016 µg/L [0.016]	Low, 89.535 %Abs		0.050 - 2.000	Kit:240520
AC41522	CYLINDROSPERMOPSIN	1.297 Abs	0.018 µg/L	Low, 88.714 %Abs		0.050 - 2.000	Kit:240520
AC41522	CYLINDROSPERMOPSIN	1.339 Abs [1.3180] {2.3 C	0.012 µg/L [0.015]	Low, 91.587 %Abs		0.050 - 2.000	Kit:240520
AC41523	CYLINDROSPERMOPSIN	1.329 Abs	0.013 µg/L	Low, 90.903 %Abs		0.050 - 2.000	Kit:240520
AC41523	CYLINDROSPERMOPSIN	1.330 Abs [1.3295] {0.1 C	0.013 µg/L [0.013]	Low, 90.971 %Abs		0.050 - 2.000	Kit:240520
AC41524 10X	CYLINDROSPERMOPSIN	0.574 Abs	3.870 µg/L	High, 39.261 %Abs	MDF=10.000	0.050 - 2.000	Kit:240520
AC41524 10X	CYLINDROSPERMOPSIN	0.535 Abs [0.5545] {5.0 C	4.470 µg/L [4.170]	High, 36.594 %Abs	MDF=10.000	0.050 - 2.000	Kit:240520
AC41525	CYLINDROSPERMOPSIN	1.318 Abs	0.015 µg/L	Low, 90.150 %Abs		0.050 - 2.000	Kit:240520
AC41525	CYLINDROSPERMOPSIN	1.311 Abs [1.3145] {0.4 C	0.016 µg/L [0.016]	Low, 89.672 %Abs		0.050 - 2.000	Kit:240520

Note

Signature _____

Charles Hostetter 8/28/2024

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests

* Generated by software version (6.4.1.1171/1085/1.00/0.95) 8/28/2024 2:51:20 PM

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: Kit:2405201466

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
8/28/2024 2:29:35 PM				
CYL Std 0	1.476 Abs	0.000 µg/L	R ² =0.99922, 100.958 %Abs	RK1:32->A07@2
CYL Std 0	1.448 Abs [1.4620] {1.4 CV}	0.001 µg/L [0.001] {141.4 CV}	R ² =0.99922, 99.042 %Abs	RK1:32->B07@2
CYL Std 1	1.134 Abs	0.049 µg/L	R ² =0.99922, 77.565 %Abs	RK1:33->C07@2
CYL Std 1	1.111 Abs [1.1225] {1.4 CV}	0.054 µg/L [0.052] {6.9 CV}	R ² =0.99922, 75.992 %Abs	RK1:33->D07@2
CYL Std 2	0.944 Abs	0.106 µg/L	R ² =0.99922, 64.569 %Abs	RK1:34->E07@2
CYL Std 2	0.991 Abs [0.9675] {3.4 CV}	0.089 µg/L [0.098] {12.3 CV}	R ² =0.99922, 67.784 %Abs	RK1:34->F07@3
CYL Std 3	0.715 Abs	0.236 µg/L	R ² =0.99922, 48.906 %Abs	RK1:35->G07@3
CYL Std 3	0.659 Abs [0.6870] {5.8 CV}	0.286 µg/L [0.261] {13.5 CV}	R ² =0.99922, 45.075 %Abs	RK1:35->H07@3
CYL Std 4	0.544 Abs	0.432 µg/L	R ² =0.99922, 37.209 %Abs	RK1:36->A08@2
CYL Std 4	0.504 Abs [0.5240] {5.4 CV}	0.503 µg/L [0.468] {10.7 CV}	R ² =0.99922, 34.473 %Abs	RK1:36->B08@2
CYL Std 5	0.333 Abs	1.077 µg/L	R ² =0.99922, 22.777 %Abs	RK1:37->C08@2
CYL Std 5	0.325 Abs [0.3290] {1.7 CV}	1.124 µg/L [1.101] {3.0 CV}	R ² =0.99922, 22.230 %Abs	RK1:37->D08@2
CYL Std 6	0.237 Abs	1.940 µg/L	R ² =0.99922, 16.211 %Abs	RK1:38->E08@2
CYL Std 6	0.242 Abs [0.2395] {1.5 CV}	1.871 µg/L [1.906] {2.6 CV}	R ² =0.99922, 16.553 %Abs	RK1:38->F08@3

8/28/2024 2:29:35 PM				
CYL QCS	0.398 Abs	0.784 µg/L	27.223 %Abs	RK1:39->G08@3
CYL QCS	0.390 Abs [0.3940] {1.4 CV}	0.813 µg/L [0.799] {2.6 CV}	26.676 %Abs [26.949 %Abs]	RK1:39->H08@3

Statistic				
CYL Std 0 [MEAN]	1.4620	0.0005		
CYL Std 0 [SD]	0.0198	0.0007		
CYL Std 0 [%CV]	1.3542	141.4214		
CYL Std 1 [MEAN]	1.1225	0.0515		
CYL Std 1 [SD]	0.0163	0.0035		
CYL Std 1 [%CV]	1.4489	6.8651		
CYL Std 1 [%DIFF]		3.0000		
CYL Std 2 [MEAN]	0.9675	0.0975		
CYL Std 2 [SD]	0.0332	0.0120		
CYL Std 2 [%CV]	3.4350	12.3290		
CYL Std 2 [%DIFF]		-2.5000		
CYL Std 3 [MEAN]	0.6870	0.2610		
CYL Std 3 [SD]	0.0396	0.0354		
CYL Std 3 [%CV]	5.7639	13.5461		
CYL Std 3 [%DIFF]		4.4000		
CYL Std 4 [MEAN]	0.5240	0.4675		
CYL Std 4 [SD]	0.0283	0.0502		
CYL Std 4 [%CV]	5.3978	10.7389		
CYL Std 4 [%DIFF]		-6.5000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.3290	1.1005		
CYL Std 5 [SD]	0.0057	0.0332		
CYL Std 5 [%CV]	1.7194	3.0199		
CYL Std 5 [%DIFF]		10.0500		
CYL Std 6 [MEAN]	0.2395	1.9055		
CYL Std 6 [SD]	0.0035	0.0488		
CYL Std 6 [%CV]	1.4762	2.5605		
CYL Std 6 [%DIFF]		-4.7250		
CYL QCS [MEAN]	0.3940	0.7985		
CYL QCS [SD]	0.0057	0.0205		
CYL QCS [%CV]	1.4358	2.5681		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.4614
 B = 0.82827
 C = 0.20695
 D = 0.045145
 R2 coef = 0.99922
 50% = 0.223

