



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

| Sample # | Location | Date Collected | Date Analyzed | Conc. (ppb) |
|----------|--|----------------|---------------|-------------|
| AB52176 | Kunkel Lake @ Oubache State Park | 8/1/2022 | 8/4/2022 | < 0.15 |
| AB52179 | Chain O'Lakes SP | 8/1/2022 | 8/4/2022 | < 0.15 |
| AB52180 | Potato Creek State Park | 8/2/2022 | 8/4/2022 | < 0.15 |
| AB52181 | Lost Bridge West SRA | 8/2/2022 | 8/4/2022 | < 0.15 |
| AB52182 | Mississinewa Lake Miami SRA | 8/2/2022 | 8/4/2022 | < 0.15 |
| AB52183 | Kunkel Lake @ Oubache State Park (Field Dup) | 8/1/2022 | 8/4/2022 | < 0.15 |

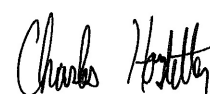
Test Report (by Request)

Test Information

Request: 8/4/2022 12:05:46 PM
Date: 8/4/2022

| Name/ID | Assay | Absorbance | Concentration | Interpretation | Note | Reference | Lot# |
|-----------|--------------------|---------------------------|---------------------|--------------------|------|-----------|----------|
| CYL Std 0 | CYLINDROSPERMOPSIN | 1.624 Abs | 0.000 µg/L | R^2=0.99899, 102.0 | | | M22A1121 |
| CYL Std 0 | CYLINDROSPERMOPSIN | 1.559 Abs [1.5915] {2.9 C | 0.004 µg/L [0.002] | R^2=0.99899, 97.92 | | | M22A1121 |
| CYL Std 1 | CYLINDROSPERMOPSIN | 1.353 Abs | 0.054 µg/L | R^2=0.99899, 84.98 | | | M22A1121 |
| CYL Std 1 | CYLINDROSPERMOPSIN | 1.331 Abs [1.3420] {1.2 C | 0.061 µg/L [0.058] | R^2=0.99899, 83.60 | | | M22A1121 |
| CYL Std 2 | CYLINDROSPERMOPSIN | 1.265 Abs | 0.084 µg/L | R^2=0.99899, 79.46 | | | M22A1121 |
| CYL Std 2 | CYLINDROSPERMOPSIN | 1.211 Abs [1.2380] {3.1 C | 0.106 µg/L [0.095] | R^2=0.99899, 76.06 | | | M22A1121 |
| CYL Std 3 | CYLINDROSPERMOPSIN | 0.978 Abs | 0.235 µg/L | R^2=0.99899, 61.43 | | | M22A1121 |
| CYL Std 3 | CYLINDROSPERMOPSIN | 0.975 Abs [0.9765] {0.2 C | 0.237 µg/L [0.236] | R^2=0.99899, 61.24 | | | M22A1121 |
| CYL Std 4 | CYLINDROSPERMOPSIN | 0.706 Abs | 0.510 µg/L | R^2=0.99899, 44.34 | | | M22A1121 |
| CYL Std 4 | CYLINDROSPERMOPSIN | 0.689 Abs [0.6975] {1.7 C | 0.535 µg/L [0.523] | R^2=0.99899, 43.27 | | | M22A1121 |
| CYL Std 5 | CYLINDROSPERMOPSIN | 0.473 Abs | 1.000 µg/L | R^2=0.99899, 29.71 | | | M22A1121 |
| CYL Std 5 | CYLINDROSPERMOPSIN | 0.464 Abs [0.4685] {1.4 C | 1.028 µg/L [1.014] | R^2=0.99899, 29.14 | | | M22A1121 |
| CYL Std 6 | CYLINDROSPERMOPSIN | 0.285 Abs | 1.901 µg/L | R^2=0.99899, 17.90 | | | M22A1121 |
| CYL Std 6 | CYLINDROSPERMOPSIN | 0.271 Abs [0.2780] {3.6 C | > 2.000 µg/L [1.90] | 17.023 %Abs | | | M22A1121 |
| CYL QCS | CYLINDROSPERMOPSIN | 0.533 Abs | 0.834 µg/L | 33.480 %Abs | | | M22A1121 |
| CYL QCS | CYLINDROSPERMOPSIN | 0.540 Abs [0.5365] {0.9 C | 0.817 µg/L [0.826] | 33.920 %Abs [33.7 | | | M22A1121 |

Note



Signature

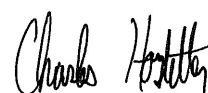
Test Information

Request: 8/4/2022 12:39:43 PM
Date: 8/4/2022

| Name/ID | Assay | Absorbance | Concentration | Interpretation | Note | Reference | Lot# |
|------------|--------------------|---------------------------|--------------------|-------------------|------|---------------|----------|
| LRB (CYL) | CYLINDROSPERMOPSIN | 1.523 Abs | 0.010 µg/L | Low, 95.666 %Abs | | 0.050 - 2.000 | M22A1121 |
| LRB (CYL) | CYLINDROSPERMOPSIN | 1.510 Abs [1.5165] {0.6 C | 0.013 µg/L [0.012] | Low, 94.849 %Abs | | 0.050 - 2.000 | M22A1121 |
| LFB (CYL) | CYLINDROSPERMOPSIN | 0.613 Abs | 0.662 µg/L | 38.505 %Abs | | 0.050 - 2.000 | M22A1121 |
| LFB (CYL) | CYLINDROSPERMOPSIN | 0.598 Abs [0.6055] {1.8 C | 0.691 µg/L [0.676] | 37.563 %Abs [38.0 | | 0.050 - 2.000 | M22A1121 |
| AB52176 | CYLINDROSPERMOPSIN | 1.418 Abs | 0.035 µg/L | Low, 89.070 %Abs | | 0.050 - 2.000 | M22A1121 |
| AB52176 | CYLINDROSPERMOPSIN | 1.402 Abs [1.4100] {0.8 C | 0.039 µg/L [0.037] | Low, 88.065 %Abs | | 0.050 - 2.000 | M22A1121 |
| AB52179 | CYLINDROSPERMOPSIN | 1.415 Abs | 0.036 µg/L | Low, 88.882 %Abs | | 0.050 - 2.000 | M22A1121 |
| AB52179 | CYLINDROSPERMOPSIN | 1.435 Abs [1.4250] {1.0 C | 0.030 µg/L [0.033] | Low, 90.138 %Abs | | 0.050 - 2.000 | M22A1121 |
| AB52180 | CYLINDROSPERMOPSIN | 1.463 Abs | 0.023 µg/L | Low, 91.897 %Abs | | 0.050 - 2.000 | M22A1121 |
| AB52180 | CYLINDROSPERMOPSIN | 1.437 Abs [1.4500] {1.3 C | 0.030 µg/L [0.026] | Low, 90.264 %Abs | | 0.050 - 2.000 | M22A1121 |
| AB52180MS | CYLINDROSPERMOPSIN | 0.573 Abs | 0.742 µg/L | 35.992 %Abs | | 0.050 - 2.000 | M22A1121 |
| AB52180MS | CYLINDROSPERMOPSIN | 0.558 Abs [0.5655] {1.9 C | 0.775 µg/L [0.758] | 35.050 %Abs [35.5 | | 0.050 - 2.000 | M22A1121 |
| AB52180MSD | CYLINDROSPERMOPSIN | 0.567 Abs | 0.755 µg/L | 35.616 %Abs | | 0.050 - 2.000 | M22A1121 |
| AB52180MSD | CYLINDROSPERMOPSIN | 0.549 Abs [0.5580] {2.3 C | 0.796 µg/L [0.775] | 34.485 %Abs [35.0 | | 0.050 - 2.000 | M22A1121 |
| AB52181 | CYLINDROSPERMOPSIN | 1.380 Abs | 0.045 µg/L | Low, 86.683 %Abs | | 0.050 - 2.000 | M22A1121 |
| AB52181 | CYLINDROSPERMOPSIN | 1.415 Abs [1.3975] {1.8 C | 0.036 µg/L [0.041] | Low, 88.882 %Abs | | 0.050 - 2.000 | M22A1121 |
| AB52182 | CYLINDROSPERMOPSIN | 1.455 Abs | 0.025 µg/L | Low, 91.394 %Abs | | 0.050 - 2.000 | M22A1121 |
| AB52182 | CYLINDROSPERMOPSIN | 1.437 Abs [1.4460] {0.9 C | 0.030 µg/L [0.027] | Low, 90.264 %Abs | | 0.050 - 2.000 | M22A1121 |
| AB52183 | CYLINDROSPERMOPSIN | 1.401 Abs | 0.039 µg/L | Low, 88.003 %Abs | | 0.050 - 2.000 | M22A1121 |
| AB52183 | CYLINDROSPERMOPSIN | 1.355 Abs [1.3780] {2.4 C | 0.053 µg/L [0.046] | 85.113 %Abs [Low, | | 0.050 - 2.000 | M22A1121 |

Note

Signature



Charles Hostetter 8/4/2022

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: M22A1121

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 |
|----------------------|-----------------------------|-------------------------------|---------------------------------------|---------------|
| 8/4/2022 12:05:46 PM | | | | |
| CYL Std 0 | 1.624 Abs | 0.000 µg/L | R ² =0.99899, 102.010 %Abs | RK1:32->A07@2 |
| CYL Std 0 | 1.559 Abs [1.5915] {2.9 CV} | 0.004 µg/L [0.002] {141.4 CV} | R ² =0.99899, 97.927 %Abs | RK1:32->B07@2 |
| CYL Std 1 | 1.353 Abs | 0.054 µg/L | R ² =0.99899, 84.987 %Abs | RK1:33->C07@2 |
| CYL Std 1 | 1.331 Abs [1.3420] {1.2 CV} | 0.061 µg/L [0.058] {8.6 CV} | R ² =0.99899, 83.606 %Abs | RK1:33->D07@2 |
| CYL Std 2 | 1.265 Abs | 0.084 µg/L | R ² =0.99899, 79.460 %Abs | RK1:34->E07@2 |
| CYL Std 2 | 1.211 Abs [1.2380] {3.1 CV} | 0.106 µg/L [0.095] {16.4 CV} | R ² =0.99899, 76.068 %Abs | RK1:34->F07@3 |
| CYL Std 3 | 0.978 Abs | 0.235 µg/L | R ² =0.99899, 61.432 %Abs | RK1:35->G07@3 |
| CYL Std 3 | 0.975 Abs [0.9765] {0.2 CV} | 0.237 µg/L [0.236] {0.6 CV} | R ² =0.99899, 61.244 %Abs | RK1:35->H07@3 |
| CYL Std 4 | 0.706 Abs | 0.510 µg/L | R ² =0.99899, 44.347 %Abs | RK1:36->A08@2 |
| CYL Std 4 | 0.689 Abs [0.6975] {1.7 CV} | 0.535 µg/L [0.523] {3.4 CV} | R ² =0.99899, 43.279 %Abs | RK1:36->B08@2 |
| CYL Std 5 | 0.473 Abs | 1.000 µg/L | R ² =0.99899, 29.711 %Abs | RK1:37->C08@2 |
| CYL Std 5 | 0.464 Abs [0.4685] {1.4 CV} | 1.028 µg/L [1.014] {2.0 CV} | R ² =0.99899, 29.146 %Abs | RK1:37->D08@2 |
| CYL Std 6 | 0.285 Abs | 1.901 µg/L | R ² =0.99899, 17.902 %Abs | RK1:38->E08@2 |
| CYL Std 6 | 0.271 Abs [0.2780] {3.6 CV} | > 2.000 µg/L [1.901] | 17.023 %Abs | RK1:38->F08@3 |
| ***** | | | | |
| 8/4/2022 12:05:46 PM | | | | |
| CYL QCS | 0.533 Abs | 0.834 µg/L | 33.480 %Abs | RK1:39->G08@3 |
| CYL QCS | 0.540 Abs [0.5365] {0.9 CV} | 0.817 µg/L [0.826] {1.5 CV} | 33.920 %Abs [33.700 %Abs] | RK1:39->H08@3 |
| ***** | | | | |
| Statistic | | | | |
| CYL Std 0 [MEAN] | 1.5915 | 0.0020 | | |
| CYL Std 0 [SD] | 0.0460 | 0.0028 | | |
| CYL Std 0 [%CV] | 2.8880 | 141.4214 | | |
| CYL Std 1 [MEAN] | 1.3420 | 0.0575 | | |
| CYL Std 1 [SD] | 0.0156 | 0.0049 | | |
| CYL Std 1 [%CV] | 1.1592 | 8.6083 | | |
| CYL Std 1 [%DIFF] | | 15.0000 | | |
| CYL Std 2 [MEAN] | 1.2380 | 0.0950 | | |
| CYL Std 2 [SD] | 0.0382 | 0.0156 | | |
| CYL Std 2 [%CV] | 3.0843 | 16.3751 | | |
| CYL Std 2 [%DIFF] | | -5.0000 | | |
| CYL Std 3 [MEAN] | 0.9765 | 0.2360 | | |
| CYL Std 3 [SD] | 0.0021 | 0.0014 | | |
| CYL Std 3 [%CV] | 0.2172 | 0.5992 | | |
| CYL Std 3 [%DIFF] | | -5.6000 | | |
| CYL Std 4 [MEAN] | 0.6975 | 0.5225 | | |
| CYL Std 4 [SD] | 0.0120 | 0.0177 | | |
| CYL Std 4 [%CV] | 1.7234 | 3.3833 | | |
| CYL Std 4 [%DIFF] | | 4.5000 | | |

| Name | Absorbance | Concentration | Interpretation | Position |
|-------------------|------------|---------------|----------------|----------|
| CYL Std 5 [MEAN] | 0.4685 | 1.0140 | | |
| CYL Std 5 [SD] | 0.0064 | 0.0198 | | |
| CYL Std 5 [%CV] | 1.3584 | 1.9526 | | |
| CYL Std 5 [%DIFF] | | 1.4000 | | |
| CYL Std 6 [MEAN] | 0.2780 | | | |
| CYL Std 6 [SD] | 0.0099 | | | |
| CYL Std 6 [%CV] | 3.5610 | | | |
| CYL QCS [MEAN] | 0.5365 | 0.8255 | | |
| CYL QCS [SD] | 0.0049 | 0.0120 | | |
| CYL QCS [%CV] | 0.9226 | 1.4562 | | |

Assay Curve

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

Weight: NONE

A = 1.5863

B = 0.84927

C = 0.46573

D = -0.10902

R2 coef = 0.99899

50% = 0.397

