Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC41095	Cecil M. Harden Lake - Raccoon Lake SRA Beach	7/22/2024	7/25/2024	< 0.10
AC41096	Cagles Mill Lake - Lieber SRA Beach	7/22/2024	7/25/2024	< 0.10
AC41097	Starve Hollow SRA - Starve Hollow Lake Beach	7/22/2024	7/25/2024	< 0.10
AC41098	Hardy Lake SRA - Hardy Lake SRA Beach	7/22/2024	7/25/2024	< 0.10
AC41099	Whitewater Memorial SP - Whitewater Lake Beach	7/23/2024	7/25/2024	< 0.10
AC41100	Brookville Lake - Quakertown SRA Beach	7/23/2024	7/25/2024	< 0.10
AC41101	Brookville Lake - Mounds SRA Beach	7/23/2024	7/25/2024	< 0.10
AC41102	Whitewater Memorial SP - Whitewater Lake Beach (Field Duplicate)	7/22/2024	7/25/2024	< 0.10
AC41103	Field Blank	7/22/2024	7/25/2024	< 0.10
AC41104	Ft. Ben Harrison SP Dog Lake	7/23/2024	7/25/2024	< 0.10

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Test Report (by Request)

Test Information

Request: 7/25/2024 2:51:31 PM
Date: 7/25/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	1.362 Abs	0.000 µg/L	R^2=0.99959, 99.7		0.000	Kit:24052(
CYL Std 0	CYLINDROSPERMOPSIN	1.367 Abs [1.3645] {0.3 C	0.000 µg/L [0.000]	R^2=0.99959, 100.1		0.000	Kit:24052(
CYL Std 1	CYLINDROSPERMOPSIN	1.115 Abs	0.049 µg/L	R^2=0.99959, 81.6		0.050	Kit:24052(
CYL Std 1	CYLINDROSPERMOPSIN	1.110 Abs [1.1125] {0.3 C	0.051 µg/L [0.050]	R^2=0.99959, 81.3		0.050	Kit:24052(
CYL Std 2	CYLINDROSPERMOPSIN	0.947 Abs	0.102 µg/L	R^2=0.99959, 69.3		0.100	Kit:24052(
CYL Std 2	CYLINDROSPERMOPSIN	0.940 Abs [0.9435] {0.5 C	0.105 µg/L [0.104]	R^2=0.99959, 68.8		0.100	Kit:24052(
CYL Std 3	CYLINDROSPERMOPSIN	0.701 Abs	0.236 µg/L	R^2=0.99959, 51.3		0.250	Kit:24052(
CYL Std 3	CYLINDROSPERMOPSIN	0.696 Abs [0.6985] {0.5 C	0.240 µg/L [0.238]	R^2=0.99959, 50.9		0.250	Kit:24052(
CYL Std 4	CYLINDROSPERMOPSIN	0.470 Abs	0.529 µg/L	R^2=0.99959, 34.4		0.500	Kit:24052(
CYL Std 4	CYLINDROSPERMOPSIN	0.477 Abs [0.4735] {1.0 C	0.515 µg/L [0.522]	R^2=0.99959, 34.9		0.500	Kit:24052(
CYL Std 5	CYLINDROSPERMOPSIN	0.344 Abs	0.923 µg/L	R^2=0.99959, 25.2		1.000	Kit:24052(
CYL Std 5	CYLINDROSPERMOPSIN	0.307 Abs [0.3255] {8.0 C	1.127 µg/L [1.025]	R^2=0.99959, 22.4		1.000	Kit:24052(
CYL Std 6	CYLINDROSPERMOPSIN	0.219 Abs	> 2.000 µg/L	16.044 %Abs		2.000	Kit:24052(
CYL Std 6	CYLINDROSPERMOPSIN	0.236 Abs [0.2275] {5.3 C	1.814 µg/L [1.814]	R^2=0.99959, 17.2		2.000	Kit:24052(
CYL QCS	CYLINDROSPERMOPSIN	0.402 Abs	0.701 µg/L	29.451 %Abs			Kit:24052(
CYL QCS	CYLINDROSPERMOPSIN	0.431 Abs [0.4165] {4.9 C	0.619 µg/L [0.660]	31.575 %Abs [30.5			Kit:24052(

Note

Signature

Charles Hostetter 7/25/2024

* 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) 7/25/2024 3:23:31 PM

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Test Report (by Request)

Test Information

Request: 7/25/2024 2:52:47 PM
Date: 7/25/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (CYL)	CYLINDROSPERMOPSIN	1.364 Abs	0.000 µg/L	Low, 100.000 %Abs		0.050 - 2.000	Kit:24052(
LRB (CYL)	CYLINDROSPERMOPSIN	1.337 Abs [1.3505] {1.4 C	0.004 µg/L [0.002]	Low, 97.949 %Abs		0.050 - 2.000	Kit:24052(
LFB (CYL)	CYLINDROSPERMOPSIN	0.422 Abs	0.643 µg/L	30.916 %Abs		0.050 - 2.000	Kit:24052(
LFB (CYL)	CYLINDROSPERMOPSIN	0.420 Abs [0.4210] {0.3 C	0.649 µg/L [0.646]	30.769 %Abs [30.8		0.050 - 2.000	Kit:24052(
AC41095	CYLINDROSPERMOPSIN	1.329 Abs	0.005 µg/L	Low, 97.363 %Abs		0.050 - 2.000	Kit:24052(
AC41095	CYLINDROSPERMOPSIN	1.366 Abs [1.3475] {1.9 C	0.000 µg/L [0.003]	Low, 100.000 %Abs		0.050 - 2.000	Kit:24052(
AC41096	CYLINDROSPERMOPSIN	1.377 Abs	0.000 µg/L	Low, 100.879 %Abs		0.050 - 2.000	Kit:24052(
AC41096	CYLINDROSPERMOPSIN	1.363 Abs [1.3700] {0.7 C	0.000 µg/L [0.000]	Low, 99.853 %Abs		0.050 - 2.000	Kit:24052(
AC41097	CYLINDROSPERMOPSIN	1.331 Abs	0.005 µg/L	Low, 97.509 %Abs		0.050 - 2.000	Kit:24052(
AC41097	CYLINDROSPERMOPSIN	1.285 Abs [1.3080] {2.5 C	0.013 µg/L [0.009]	Low, 94.139 %Abs		0.050 - 2.000	Kit:24052(
AC41097MS	CYLINDROSPERMOPSIN	0.411 Abs	0.674 µg/L	30.110 %Abs		0.050 - 2.000	Kit:24052(
AC41097MS	CYLINDROSPERMOPSIN	0.414 Abs [0.4125] {0.5 C	0.666 µg/L [0.670]	30.330 %Abs [30.2		0.050 - 2.000	Kit:24052(
AC41097MSD	CYLINDROSPERMOPSIN	0.420 Abs	0.649 µg/L	30.769 %Abs		0.050 - 2.000	Kit:24052(
AC41097MSD	CYLINDROSPERMOPSIN	0.414 Abs [0.4170] {1.0 C	0.666 µg/L [0.658]	30.330 %Abs [30.5		0.050 - 2.000	Kit:24052(
AC41098	CYLINDROSPERMOPSIN	1.339 Abs	0.004 µg/L	Low, 98.095 %Abs		0.050 - 2.000	Kit:24052(
AC41098	CYLINDROSPERMOPSIN	1.365 Abs [1.3520] {1.4 C	0.000 µg/L [0.002]	Low, 100.000 %Abs		0.050 - 2.000	Kit:24052(
AC41099	CYLINDROSPERMOPSIN	1.330 Abs	0.005 µg/L	Low, 97.436 %Abs		0.050 - 2.000	Kit:24052(
AC41099	CYLINDROSPERMOPSIN	1.268 Abs [1.2990] {3.4 C	0.016 µg/L [0.011]	Low, 92.894 %Abs		0.050 - 2.000	Kit:24052(
AC41100	CYLINDROSPERMOPSIN	1.291 Abs	0.012 µg/L	Low, 94.579 %Abs		0.050 - 2.000	Kit:24052(
AC41100	CYLINDROSPERMOPSIN	1.336 Abs [1.3135] {2.4 C	0.004 µg/L [0.008]	Low, 97.875 %Abs		0.050 - 2.000	Kit:24052(
AC41101	CYLINDROSPERMOPSIN	1.350 Abs	0.002 µg/L	Low, 98.901 %Abs		0.050 - 2.000	Kit:24052(
AC41101	CYLINDROSPERMOPSIN	1.357 Abs [1.3535] {0.4 C	0.001 µg/L [0.002]	Low, 99.414 %Abs		0.050 - 2.000	Kit:24052(
AC41102	CYLINDROSPERMOPSIN	1.366 Abs	0.000 µg/L	Low, 100.000 %Abs		0.050 - 2.000	Kit:24052(
AC41102	CYLINDROSPERMOPSIN	1.357 Abs [1.3615] {0.5 C	0.001 µg/L [0.001]	Low, 99.414 %Abs		0.050 - 2.000	Kit:24052(
AC41103	CYLINDROSPERMOPSIN	1.365 Abs	0.000 µg/L	Low, 100.000 %Abs		0.050 - 2.000	Kit:24052(
AC41103	CYLINDROSPERMOPSIN	1.373 Abs [1.3690] {0.4 C	0.000 µg/L [0.000]	Low, 100.586 %Abs		0.050 - 2.000	Kit:24052(
AC41104	CYLINDROSPERMOPSIN	1.341 Abs	0.003 µg/L	Low, 98.242 %Abs		0.050 - 2.000	Kit:24052(
AC41104	CYLINDROSPERMOPSIN	1.317 Abs [1.3290] {1.3 C	0.007 µg/L [0.005]	Low, 96.484 %Abs		0.050 - 2.000	Kit:24052(

Note

Signature

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* 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) 7/25/2024 3:23:31 PM

CYLINDROSPERMOPSIN_ - Assay Calibration Report

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:
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 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

Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
7/25/2024 2:51:31 PM				
CYL Std 0	1.362 Abs	0.000 µg/L	R^2=0.99959, 99.780 %Abs	RK1:32->A07@2
CYL Std 0	1.367 Abs [1.3645] {0.3 CV}	0.000 µg/L [0.000]	R^2=0.99959, 100.147 %Abs	RK1:32->B07@2
CYL Std 1	1.115 Abs	0.049 µg/L	R^2=0.99959, 81.685 %Abs	RK1:33->C07@2
CYL Std 1	1.110 Abs [1.1125] {0.3 CV}	0.051 µg/L [0.050] {2.8 CV}	R^2=0.99959, 81.319 %Abs	RK1:33->D07@2
CYL Std 2	0.947 Abs	0.102 µg/L	R^2=0.99959, 69.377 %Abs	RK1:34->E07@2
CYL Std 2	0.940 Abs [0.9435] {0.5 CV}	0.105 µg/L [0.104] {2.0 CV}	R^2=0.99959, 68.864 %Abs	RK1:34->F07@3
CYL Std 3	0.701 Abs	0.236 µg/L	R^2=0.99959, 51.355 %Abs	RK1:35->G07@3
CYL Std 3	0.696 Abs [0.6985] {0.5 CV}	0.240 µg/L [0.238] {1.2 CV}	R^2=0.99959, 50.989 %Abs	RK1:35->H07@3
CYL Std 4	0.470 Abs	0.529 µg/L	R^2=0.99959, 34.432 %Abs	RK1:36->A08@2
CYL Std 4	0.477 Abs [0.4735] {1.0 CV}	0.515 µg/L [0.522] {1.9 CV}	R^2=0.99959, 34.945 %Abs	RK1:36->B08@2
CYL Std 5	0.344 Abs	0.923 µg/L	R^2=0.99959, 25.201 %Abs	RK1:37->C08@2
CYL Std 5	0.307 Abs [0.3255] {8.0 CV}	1.127 µg/L [1.025] {14.1 CV}	R^2=0.99959, 22.491 %Abs	RK1:37->D08@2
CYL Std 6	0.219 Abs	> 2.000 µg/L	16.044 %Abs	RK1:38->E08@2
CYL Std 6	0.236 Abs [0.2275] {5.3 CV}	1.814 µg/L [1.814]	R^2=0.99959, 17.289 %Abs	RK1:38->F08@3
++++++++++++++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++
7/25/2024 2:51:31 PM				
CYL QCS	0.402 Abs	0.701 µg/L	29.451 %Abs	RK1:39->G08@3
CYL QCS	0.431 Abs [0.4165] {4.9 CV}	0.619 µg/L [0.660] {8.8 CV}	31.575 %Abs [30.513 %Abs]	RK1:39->H08@3
**********	**********	**********	**********	**********
Statistic				
CYL Std 0 [MEAN]	1.3645	0.0000		
CYL Std 0 [SD]	0.0035	0.0000		
CYL Std 0 [%CV]	0.2591	0.0000		
CYL Std 1 [MEAN]	1.1125	0.0500		
CYL Std 1 [SD]	0.0035	0.0014		
CYL Std 1 [%CV]	0.3178	2.8284		
CYL Std 1 [%DIFF]		-0.0000		
CYL Std 2 [MEAN]	0.9435	0.1035		
CYL Std 2 [SD]	0.0049	0.0021		
CYL Std 2 [%CV]	0.5246	2.0496		
CYL Std 2 [%DIFF]		3.5000		
CYL Std 3 [MEAN]	0.6985	0.2380		
CYL Std 3 [SD]	0.0035	0.0028		
CYL Std 3 [%CV]	0.5062	1.1884		
CYL Std 3 [%DIFF]		-4.8000		
CYL Std 4 [MEAN]	0.4735	0.5220		
CYL Std 4 [SD]	0.0049	0.0099		
CYL Std 4 [%CV]	1.0454	1.8965		
CYL Std 4 [%DIFF]		4.4000		

CYLINDROSPERMOPSIN_ - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.3255	1.0250		
CYL Std 5 [SD]	0.0262	0.1442		
CYL Std 5 [%CV]	8.0378	14.0731		
CYL Std 5 [%DIFF]		2.5000		
CYL Std 6 [MEAN]	0.2275			
CYL Std 6 [SD]	0.0120			
CYL Std 6 [%CV]	5.2839			
CYL QCS [MEAN]	0.4165	0.6600		
CYL QCS [SD]	0.0205	0.0580		
CYL QCS [%CV]	4.9234	8.7853		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.3643
B = 0.95340
C = 0.21769
D = 0.086524
R2 coef = 0.99959
50% = 0.251