



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB51329	Raccoon Lake SRA	5/31/2022	6/2/2022	< 0.05
AB51330	Whitewater Memorial SP	5/31/2022	6/2/2022	< 0.05
AB51331	Field Blank	5/31/2022	6/2/2022	< 0.05
AB51332	Raccoon Lake SRA (Field Duplicate)	5/31/2022	6/2/2022	< 0.05

Test Information

Request: 6/2/2022 12:49:56 PM
Date: 6/2/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	0.782 Abs	0.001 µg/L	R ² =0.99942, 99.4%			M22B127
STX Std 0	SAXITOXIN	0.790 Abs [0.7860] {0.7 C	0.000 µg/L [0.001]	R ² =0.99942, 100.5%			M22B127
STX Std 1	SAXITOXIN	0.673 Abs	0.017 µg/L	R ² =0.99942, 85.6%			M22B127
STX Std 1	SAXITOXIN	0.648 Abs [0.6605] {2.7 C	0.022 µg/L [0.020]	R ² =0.99942, 82.4%			M22B127
STX Std 2	SAXITOXIN	0.540 Abs	0.048 µg/L	R ² =0.99942, 68.7%			M22B127
STX Std 2	SAXITOXIN	0.527 Abs [0.5335] {1.7 C	0.052 µg/L [0.050]	R ² =0.99942, 67.0%			M22B127
STX Std 3	SAXITOXIN	0.408 Abs	0.101 µg/L	R ² =0.99942, 51.9%			M22B127
STX Std 3	SAXITOXIN	0.399 Abs [0.4035] {1.6 C	0.107 µg/L [0.104]	R ² =0.99942, 50.7%			M22B127
STX Std 4	SAXITOXIN	0.303 Abs	0.187 µg/L	R ² =0.99942, 38.5%			M22B127
STX Std 4	SAXITOXIN	0.299 Abs [0.3010] {0.9 C	0.192 µg/L [0.190]	R ² =0.99942, 38.0%			M22B127
STX Std 5	SAXITOXIN	0.201 Abs	> 0.400 µg/L	25.573 %Abs			M22B127
STX Std 5	SAXITOXIN	0.195 Abs [0.1980] {2.1 C	> 0.400 µg/L	24.809 %Abs			M22B127
STX Control (0.060-0.090)	SAXITOXIN	0.466 Abs	0.073 µg/L	59.288 %Abs			M22B127
STX Control (0.060-0.090)	SAXITOXIN	0.450 Abs [0.4580] {2.5 C	0.080 µg/L [0.076]	57.252 %Abs [58.2			M22B127

Note

Signature 

David Jordan 6/2/2022

Test Report (by Request)

Test Information

Request: 6/2/2022 1:34:07 PM
Date: 6/2/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	0.766 Abs	0.003 µg/L	Low, 97.455 %Abs		0.020 - 0.400	M22B127 [*]
LRB	SAXITOXIN	0.754 Abs [0.7600] {1.1 C	0.004 µg/L [0.004]	Low, 95.929 %Abs		0.020 - 0.400	M22B127 [*]
LFB (SAX)	SAXITOXIN	0.437 Abs	0.086 µg/L	55.598 %Abs		0.020 - 0.400	M22B127 [*]
LFB (SAX)	SAXITOXIN	0.427 Abs [0.4320] {1.6 C	0.091 µg/L [0.089]	54.326 %Abs [54.9		0.020 - 0.400	M22B127 [*]
AB51329	SAXITOXIN	0.751 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127 [*]
AB51329	SAXITOXIN	0.741 Abs [0.7460] {0.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127 [*]
AB51330	SAXITOXIN	0.751 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127 [*]
AB51330	SAXITOXIN	0.739 Abs [0.7450] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127 [*]
AB51330MS	SAXITOXIN	0.402 Abs	0.105 µg/L	51.145 %Abs		0.020 - 0.400	M22B127 [*]
AB51330MS	SAXITOXIN	0.393 Abs [0.3975] {1.6 C	0.110 µg/L [0.108]	50.000 %Abs [50.5		0.020 - 0.400	M22B127 [*]
AB51330MSD	SAXITOXIN	0.433 Abs	0.088 µg/L	55.089 %Abs		0.020 - 0.400	M22B127 [*]
AB51330MSD	SAXITOXIN	0.433 Abs [0.4330] {0.0 C	0.088 µg/L [0.088]	55.089 %Abs [55.0		0.020 - 0.400	M22B127 [*]
AB51331	SAXITOXIN	0.772 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127 [*]
AB51331	SAXITOXIN	0.754 Abs [0.7630] {1.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127 [*]
AB51332	SAXITOXIN	0.778 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M22B127 [*]
AB51332	SAXITOXIN	0.763 Abs [0.7705] {1.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M22B127 [*]

Note

Signature

David Jordan

David Jordan 6/2/2022

* 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 (6.4.1.1139/1085/1.00/0.95) 6/2/2022 1:37:50 PM

Assay Information

Assay Name: SAXITOXIN
Version: 2
Temperature: Room Temperature
Last Modified By: Security disabled
Units: µg/L
Assay Description: PN. 52255B
Assay Substances: Controls:

Assay Mode: 4-Parameter Logistic Weight by:None
Well Type: Flat bottom
Last Modified On: 7/25/2019 3:55:28 PM
Normal: 0.020 - 0.400
of decimals: 3
Kit Lot Number: M22B1271

STX Control (0.060-0.090)
Standards:
STX Std 0, Concentration = 0.000, Minimum number to use: 2
STX Std 1, Concentration = 0.020, Minimum number to use: 2
STX Std 2, Concentration = 0.050, Minimum number to use: 2
STX Std 3, Concentration = 0.100, Minimum number to use: 2
STX Std 4, Concentration = 0.200, Minimum number to use: 2
STX Std 5, Concentration = 0.400, 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
6/2/2022 12:49:56 PM				
STX Std 0	0.782 Abs	0.001 µg/L	R^2=0.99942, 99.491 %Abs	RK1:23->A01@2
STX Std 0	0.790 Abs [0.7860] {0.7 CV}	0.000 µg/L [0.001] {141.4 CV}	R^2=0.99942, 100.509 %Abs	RK1:23->B01@2
STX Std 1	0.673 Abs	0.017 µg/L	R^2=0.99942, 85.623 %Abs	RK1:24->C01@2
STX Std 1	0.648 Abs [0.6605] {2.7 CV}	0.022 µg/L [0.020] {18.1 CV}	R^2=0.99942, 82.443 %Abs	RK1:24->D01@2
STX Std 2	0.540 Abs	0.048 µg/L	R^2=0.99942, 68.702 %Abs	RK1:25->E01@2
STX Std 2	0.527 Abs [0.5335] {1.7 CV}	0.052 µg/L [0.050] {5.7 CV}	R^2=0.99942, 67.048 %Abs	RK1:25->F01@3
STX Std 3	0.408 Abs	0.101 µg/L	R^2=0.99942, 51.908 %Abs	RK1:26->G01@3
STX Std 3	0.399 Abs [0.4035] {1.6 CV}	0.107 µg/L [0.104] {4.1 CV}	R^2=0.99942, 50.763 %Abs	RK1:26->H01@3
STX Std 4	0.303 Abs	0.187 µg/L	R^2=0.99942, 38.550 %Abs	RK1:27->A02@2
STX Std 4	0.299 Abs [0.3010] {0.9 CV}	0.192 µg/L [0.190] {1.9 CV}	R^2=0.99942, 38.041 %Abs	RK1:27->B02@2
STX Std 5	0.201 Abs	> 0.400 µg/L	25.573 %Abs	RK1:28->C02@2
STX Std 5	0.195 Abs [0.1980] {2.1 CV}	> 0.400 µg/L	24.809 %Abs	RK1:28->D02@2

6/2/2022 12:49:56 PM				
STX Control (0.060-0.090)	0.466 Abs	0.073 µg/L	59.288 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.450 Abs [0.4580] {2.5 CV}	0.080 µg/L [0.076] {6.5 CV}	57.252 %Abs [58.270 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	0.7860	0.0005		
STX Std 0 [SD]	0.0057	0.0007		
STX Std 0 [%CV]	0.7197	141.4214		
STX Std 1 [MEAN]	0.6605	0.0195		
STX Std 1 [SD]	0.0177	0.0035		
STX Std 1 [%CV]	2.6764	18.1309		
STX Std 1 [%DIFF]		-2.5000		
STX Std 2 [MEAN]	0.5335	0.0500		
STX Std 2 [SD]	0.0092	0.0028		
STX Std 2 [%CV]	1.7230	5.6569		
STX Std 2 [%DIFF]		-0.0000		
STX Std 3 [MEAN]	0.4035	0.1040		
STX Std 3 [SD]	0.0064	0.0042		
STX Std 3 [%CV]	1.5772	4.0795		
STX Std 3 [%DIFF]		4.0000		
STX Std 4 [MEAN]	0.3010	0.1895		
STX Std 4 [SD]	0.0028	0.0035		
STX Std 4 [%CV]	0.9397	1.8657		
STX Std 4 [%DIFF]		-5.2500		
STX Std 5 [MEAN]	0.1980			
STX Std 5 [SD]	0.0042			
STX Std 5 [%CV]	2.1428			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.4580	0.0765		
STX Control (0.060-0.090) [SD]	0.0113	0.0049		
STX Control (0.060-0.090) [%CV]	2.4702	6.4703		

Assay Curve

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

Weight: NONE

A = 0.78662

B = 1.0099

C = 0.090322

D = 0.071086

R2 coef = 0.99942

50% = 0.110

