# Microcystins ELISA Summary Report

**Office of Water Quality - Watershed Assessment and Planning Branch**

| Sample # | Location | Date Collected | Date Analyzed | Conc. (ppb) |
|---|---|---|---|---|
| AC41208 | Pokagon SP - Main Beach | 8/12/2024 | 8/15/2024 | < 0.30 |
| AC41209 | Pokagon SP - Potawatomi Inn Beach | 8/12/2024 | 8/15/2024 | < 0.30 |
| AC41210 | Chain O'Lakes SP - Sand Lake Beach | 8/12/2024 | 8/15/2024 | < 0.30 |
| AC41211 | Ouabache SP - Kunkel Lake Beach | 8/12/2024 | 8/15/2024 | < 0.30 |
| AC41212 | Potato Creek SP - Worster Lake Beach | 8/13/2024 | 8/15/2024 | < 0.30 |
| AC41213 | Mississinewa Lake - Miami SRA Beach | 8/13/2024 | 8/15/2024 | < 0.30 |
| AC41214 | Salamonie Lake - Lost Bridge West SRA Beach | 8/13/2024 | 8/15/2024 | < 0.30 |
| AC41215 | Summit Lake SP - Summit Lake Beach | 8/13/2024 | 8/15/2024 | < 0.30 |
| AC41216 | Summit Lake SP - Summit Lake Beach (Field Duplicate) | 8/13/2024 | 8/15/2024 | < 0.30 |
| AC41217 | Field Blank | 8/13/2024 | 8/15/2024 | < 0.30 |
| AC41218 | Ferdinand State Forest - Ferdinand Lake Beach | 8/12/2024 | 8/15/2024 | 0.31 |
| AC41219 | Lincoln SP - Lake Lincoln Beach | 8/12/2024 | 8/15/2024 | < 0.30 |
| AC41220 | Patoka Lake - Newton Stewart SRA | 8/12/2024 | 8/15/2024 | < 0.30 |

eurofins | Abraxis

# Test Report (by Request)

**Test Information**

Request: 8/15/2024 1:10:05 PM
Date: 8/15/2024

| Name/ID | Assay | Absorbance | Concentration | Interpretation | Note | Reference | Lot# |
|---|---|---|---|---|---|---|---|
| MCT Std 0 | MICROCYSTINS ADDA 54 | 1.182 Abs | 0.013 µg/L | R^2=0.99881, 99.32 | | 0.000 | Kit:24044( |
| MCT Std 0 | MICROCYSTINS ADDA 54 | 1.198 Abs [1.1900] {1.0 C | 0.000 µg/L [0.007] | R^2=0.99881, 100.6 | | 0.000 | Kit:24044( |
| MCT Std 1 | MICROCYSTINS ADDA 54 | 1.029 Abs | 0.132 µg/L | R^2=0.99881, 86.47 | | 0.150 | Kit:24044( |
| MCT Std 1 | MICROCYSTINS ADDA 54 | 1.017 Abs [1.0230] {0.8 C | 0.142 µg/L [0.137] | R^2=0.99881, 85.46 | | 0.150 | Kit:24044( |
| MCT Std 2 | MICROCYSTINS ADDA 54 | 0.748 Abs | 0.439 µg/L | R^2=0.99881, 62.85 | | 0.400 | Kit:24044( |
| MCT Std 2 | MICROCYSTINS ADDA 54 | 0.766 Abs [0.7570] {1.7 C | 0.412 µg/L [0.426] | R^2=0.99881, 64.37 | | 0.400 | Kit:24044( |
| MCT Std 3 | MICROCYSTINS ADDA 54 | 0.525 Abs | 0.952 µg/L | R^2=0.99881, 44.11 | | 1.000 | Kit:24044( |
| MCT Std 3 | MICROCYSTINS ADDA 54 | 0.504 Abs [0.5145] {2.9 C | 1.032 µg/L [0.992] | R^2=0.99881, 42.35 | | 1.000 | Kit:24044( |
| MCT Std 4 | MICROCYSTINS ADDA 54 | 0.376 Abs | 1.829 µg/L | R^2=0.99881, 31.59 | | 2.000 | Kit:24044( |
| MCT Std 4 | MICROCYSTINS ADDA 54 | 0.370 Abs [0.3730] {1.1 C | 1.890 µg/L [1.860] | R^2=0.99881, 31.09 | | 2.000 | Kit:24044( |
| MCT Std 5 | MICROCYSTINS ADDA 54 | 0.240 Abs | > 5.000 µg/L | 20.168 %Abs | | 5.000 | Kit:24044( |
| MCT Std 5 | MICROCYSTINS ADDA 54 | 0.238 Abs [0.2390] {0.6 C | > 5.000 µg/L | 20.000 %Abs | | 5.000 | Kit:24044( |
| MCT 546 LRB 1 | MICROCYSTINS ADDA 54 | 1.155 Abs | 0.034 µg/L | 97.059 %Abs | | | Kit:24044( |
| MCT 546 LRB 1 | MICROCYSTINS ADDA 54 | 1.119 Abs [1.1370] {2.2 C | 0.062 µg/L [0.048] | 94.034 %Abs [95.5 | | | Kit:24044( |
| MCT 546 Low-CV | MICROCYSTINS ADDA 54 | 0.870 Abs | 0.282 µg/L | 73.109 %Abs | | | Kit:24044( |
| MCT 546 Low-CV | MICROCYSTINS ADDA 54 | 0.847 Abs [0.8585] {1.9 C | 0.308 µg/L [0.295] | 71.176 %Abs [72.1 | | | Kit:24044( |
| MCT 546 LFB 1 | MICROCYSTINS ADDA 54 | 0.679 Abs | 0.555 µg/L | 57.059 %Abs | | | Kit:24044( |
| MCT 546 LFB 1 | MICROCYSTINS ADDA 54 | 0.691 Abs [0.6850] {1.2 C | 0.533 µg/L [0.544] | 58.067 %Abs [57.5 | | | Kit:24044( |

**Note**

Signature _____

Charles Hostetter 8/16/2024

* 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) 8/15/2024 4:31:33 PM

eurofins | Abraxis

# Test Report (by Request)

**Test Information**

Request: 8/15/2024 1:11:22 PM
Date: 8/15/2024

| Name/ID | Assay | Absorbance | Concentration | Interpretation | Note | Reference | Lot# |
|---|---|---|---|---|---|---|---|
| AC41208 | MICROCYSTINS ADDA 54 | 1.060 Abs | 0.107 µg/L | Low, 89.076 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41208 | MICROCYSTINS ADDA 54 | 1.076 Abs [1.0680] {1.1 C | 0.095 µg/L [0.101] | Low, 90.420 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41209 | MICROCYSTINS ADDA 54 | 1.063 Abs | 0.105 µg/L | Low, 89.328 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41209 | MICROCYSTINS ADDA 54 | 1.145 Abs [1.1040] {5.3 C | 0.042 µg/L [0.074] | Low, 96.218 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41210 | MICROCYSTINS ADDA 54 | 1.123 Abs | 0.059 µg/L | Low, 94.370 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41210 | MICROCYSTINS ADDA 54 | 1.003 Abs [1.0630] {8.0 C | 0.154 µg/L [0.107] | Low, 84.286 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41211 | MICROCYSTINS ADDA 54 | 1.090 Abs | 0.084 µg/L | Low, 91.597 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41211 | MICROCYSTINS ADDA 54 | 1.129 Abs [1.1095] {2.5 C | 0.054 µg/L [0.069] | Low, 94.874 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41211MS | MICROCYSTINS ADDA 54 | 0.645 Abs | 0.623 µg/L | 54.202 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41211MS | MICROCYSTINS ADDA 54 | 0.651 Abs [0.6480] {0.7 C | 0.610 µg/L [0.617] | 54.706 %Abs [54.4 | | 0.300 - 5.000 | Kit:24044( |
| AC41211MSD | MICROCYSTINS ADDA 54 | 0.647 Abs | 0.619 µg/L | 54.370 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41211MSD | MICROCYSTINS ADDA 54 | 0.628 Abs [0.6375] {2.1 C | 0.660 µg/L [0.640] | 52.773 %Abs [53.5 | | 0.300 - 5.000 | Kit:24044( |
| AC41212 | MICROCYSTINS ADDA 54 | 1.090 Abs | 0.084 µg/L | Low, 91.597 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41212 | MICROCYSTINS ADDA 54 | 1.045 Abs [1.0675] {3.0 C | 0.119 µg/L [0.102] | Low, 87.815 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41213 | MICROCYSTINS ADDA 54 | 1.056 Abs | 0.110 µg/L | Low, 88.739 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41213 | MICROCYSTINS ADDA 54 | 1.076 Abs [1.0660] {1.3 C | 0.095 µg/L [0.103] | Low, 90.420 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41214 | MICROCYSTINS ADDA 54 | 1.080 Abs | 0.092 µg/L | Low, 90.756 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41214 | MICROCYSTINS ADDA 54 | 1.074 Abs [1.0770] {0.4 C | 0.096 µg/L [0.094] | Low, 90.252 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41215 | MICROCYSTINS ADDA 54 | 1.079 Abs | 0.092 µg/L | Low, 90.672 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41215 | MICROCYSTINS ADDA 54 | 1.101 Abs [1.0900] {1.4 C | 0.075 µg/L [0.084] | Low, 92.521 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41216 | MICROCYSTINS ADDA 54 | 1.054 Abs | 0.112 µg/L | Low, 88.571 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41216 | MICROCYSTINS ADDA 54 | 1.154 Abs [1.1040] {6.4 C | 0.035 µg/L [0.074] | Low, 96.975 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41217 | MICROCYSTINS ADDA 54 | 1.144 Abs | 0.043 µg/L | Low, 96.134 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41217 | MICROCYSTINS ADDA 54 | 1.193 Abs [1.1685] {3.0 C | 0.002 µg/L [0.023] | Low, 100.252 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41218 | MICROCYSTINS ADDA 54 | 0.851 Abs | 0.304 µg/L | 71.513 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41218 | MICROCYSTINS ADDA 54 | 0.844 Abs [0.8475] {0.6 C | 0.312 µg/L [0.308] | 70.924 %Abs [71.2 | | 0.300 - 5.000 | Kit:24044( |
| AC41219 | MICROCYSTINS ADDA 54 | 1.071 Abs | 0.099 µg/L | Low, 90.000 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41219 | MICROCYSTINS ADDA 54 | 1.106 Abs [1.0885] {2.3 C | 0.072 µg/L [0.086] | Low, 92.941 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41220 | MICROCYSTINS ADDA 54 | 1.082 Abs | 0.090 µg/L | Low, 90.924 %Abs | | 0.300 - 5.000 | Kit:24044( |
| AC41220 | MICROCYSTINS ADDA 54 | 1.099 Abs [1.0905] {1.1 C | 0.077 µg/L [0.084] | Low, 92.353 %Abs | | 0.300 - 5.000 | Kit:24044( |
| LFB 2 | MICROCYSTINS ADDA 54 | 0.770 Abs | 0.407 µg/L | 64.706 %Abs | | 0.300 - 5.000 | Kit:24044( |
| LFB 2 | MICROCYSTINS ADDA 54 | 0.700 Abs [0.7350] {6.7 C | 0.517 µg/L [0.462] | 58.824 %Abs [61.7 | | 0.300 - 5.000 | Kit:24044( |
| LRB 2 | MICROCYSTINS ADDA 54 | 1.239 Abs | 0.000 µg/L | Low, 104.118 %Abs | | 0.300 - 5.000 | Kit:24044( |
| LRB 2 | MICROCYSTINS ADDA 54 | 1.191 Abs [1.2150] {2.8 C | 0.004 µg/L [0.002] | Low, 100.000 %Abs | | 0.300 - 5.000 | Kit:24044( |

**Note**

Signature

Charles Hostetter 8/16/2024

* 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) 8/15/2024 4:31:33 PM

# MICROCYSTINS ADDA 546_ - Assay Calibration Report

## Assay Information

Assay Name: MICROCYSTINS ADDA 546_
Version: 2
Temperature: Room Temperature
Last Modified By: Security disabled
Units: µg/L
Assay Description:
Assay Substances: Controls:
MCT 546 LRB 1
MCT 546 Low-CV
MCT 546 LFB 1
Standards:
MCT Std 0, Concentration = 0.000, Minimum number to use: 2
MCT Std 1, Concentration = 0.150, Minimum number to use: 2
MCT Std 2, Concentration = 0.400, Minimum number to use: 2
MCT Std 3, Concentration = 1.000, Minimum number to use: 2
MCT Std 4, Concentration = 2.000, Minimum number to use: 2
MCT Std 5, Concentration = 5.000, 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 10:02:13 AM
Normal: 0.300 - 5.000
# of decimals: 3
Kit Lot Number: Kit:2404401378

## Assay Calibration

**Current Calibration Status: "  "**

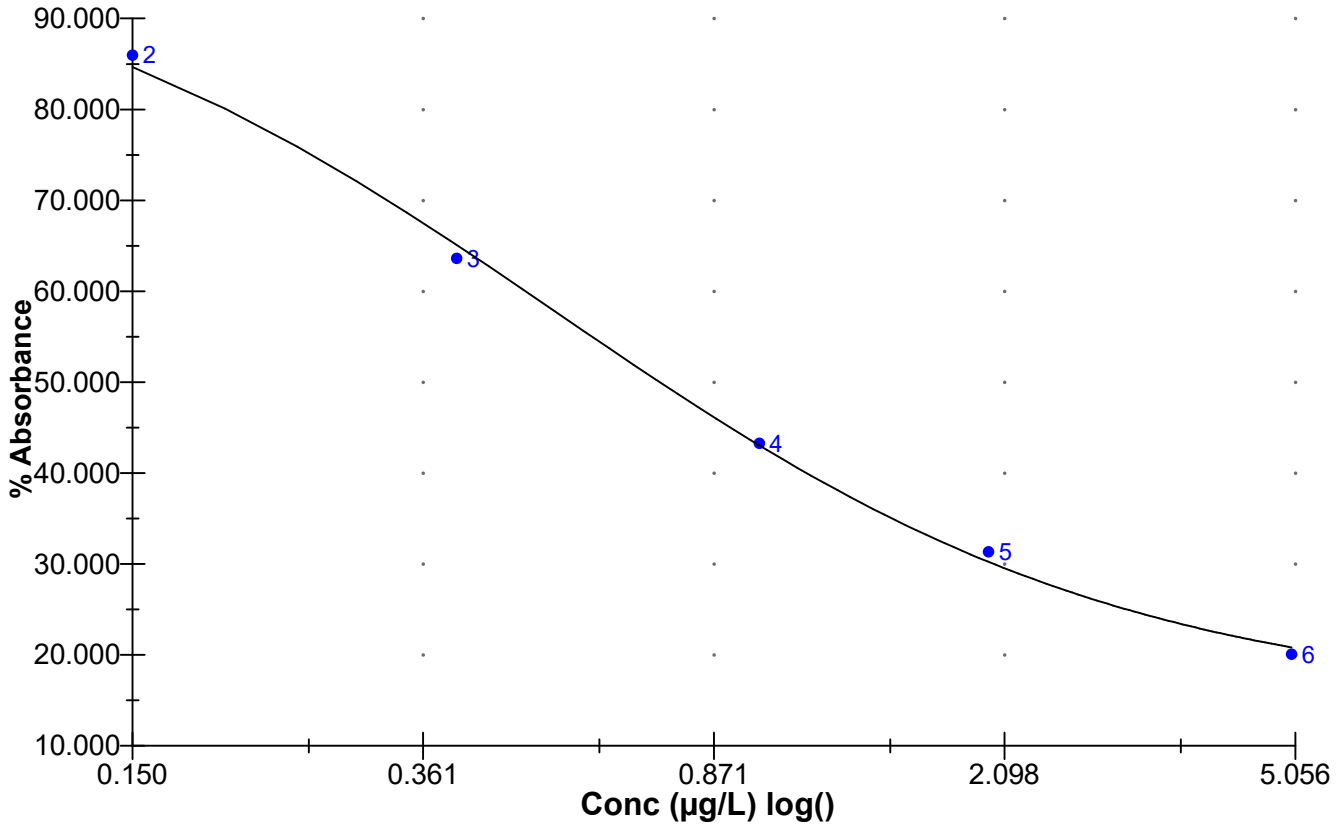
| Name | Absorbance | Concentration | Interpretation | Position |
|---|---|---|---|---|
| **8/15/2024 1:10:05 PM** | | | | |
| MCT Std 0 | 1.182 Abs | 0.013 µg/L | R^2=0.99881, 99.328 %Abs | RK1:23->A01@2 |
| MCT Std 0 | 1.198 Abs [1.1900] {1.0 CV} | 0.000 µg/L [0.007] {141.4 C\ | R^2=0.99881, 100.672 %Abs | RK1:23->B01@2 |
| MCT Std 1 | 1.029 Abs | 0.132 µg/L | R^2=0.99881, 86.471 %Abs | RK1:24->C01@2 |
| MCT Std 1 | 1.017 Abs [1.0230] {0.8 CV} | 0.142 µg/L [0.137] {5.2 CV} | R^2=0.99881, 85.462 %Abs | RK1:24->D01@2 |
| MCT Std 2 | 0.748 Abs | 0.439 µg/L | R^2=0.99881, 62.857 %Abs | RK1:25->E01@2 |
| MCT Std 2 | 0.766 Abs [0.7570] {1.7 CV} | 0.412 µg/L [0.426] {4.5 CV} | R^2=0.99881, 64.370 %Abs | RK1:25->F01@3 |
| MCT Std 3 | 0.525 Abs | 0.952 µg/L | R^2=0.99881, 44.118 %Abs | RK1:26->G01@3 |
| MCT Std 3 | 0.504 Abs [0.5145] {2.9 CV} | 1.032 µg/L [0.992] {5.7 CV} | R^2=0.99881, 42.353 %Abs | RK1:26->H01@3 |
| MCT Std 4 | 0.376 Abs | 1.829 µg/L | R^2=0.99881, 31.597 %Abs | RK1:27->A02@2 |
| MCT Std 4 | 0.370 Abs [0.3730] {1.1 CV} | 1.890 µg/L [1.860] {2.3 CV} | R^2=0.99881, 31.092 %Abs | RK1:27->B02@2 |
| MCT Std 5 | 0.240 Abs | > 5.000 µg/L | 20.168 %Abs | RK1:28->C02@2 |
| MCT Std 5 | 0.238 Abs [0.2390] {0.6 CV} | > 5.000 µg/L | 20.000 %Abs | RK1:28->D02@2 |
| ++++++++++++++++++++++++++++++++++ | ++++++++++++++++++++++ | ++++++++++++++++++++++ | ++++++++++++++++++++++ | ++++++++++++++++++++++ |
| **8/15/2024 1:10:05 PM** | | | | |
| MCT 546 LRB 1 | 1.155 Abs | 0.034 µg/L | 97.059 %Abs | RK1:29->E02@2 |
| MCT 546 LRB 1 | 1.119 Abs [1.1370] {2.2 CV} | 0.062 µg/L [0.048] {41.2 CV} | 94.034 %Abs [95.546 %Abs] | RK1:29->F02@3 |
| MCT 546 Low-CV | 0.870 Abs | 0.282 µg/L | 73.109 %Abs | RK1:30->G02@3 |
| MCT 546 Low-CV | 0.847 Abs [0.8585] {1.9 CV} | 0.308 µg/L [0.295] {6.2 CV} | 71.176 %Abs [72.143 %Abs] | RK1:30->H02@3 |
| MCT 546 LFB 1 | 0.679 Abs | 0.555 µg/L | 57.059 %Abs | RK1:31->A03@2 |
| MCT 546 LFB 1 | 0.691 Abs [0.6850] {1.2 CV} | 0.533 µg/L [0.544] {2.9 CV} | 58.067 %Abs [57.563 %Abs] | RK1:31->B03@2 |
| ********** | ********** | ********** | ********** | ********** |
| **Statistic** | | | | |
| MCT Std 0 [MEAN] | 1.1900 | 0.0065 | | |
| MCT Std 0 [SD] | 0.0113 | 0.0092 | | |
| MCT Std 0 [%CV] | 0.9507 | 141.4214 | | |
| MCT Std 1 [MEAN] | 1.0230 | 0.1370 | | |
| MCT Std 1 [SD] | 0.0085 | 0.0071 | | |
| MCT Std 1 [%CV] | 0.8295 | 5.1614 | | |
| MCT Std 1 [%DIFF] | | -8.6667 | | |
| MCT Std 2 [MEAN] | 0.7570 | 0.4255 | | |
| MCT Std 2 [SD] | 0.0127 | 0.0191 | | |
| MCT Std 2 [%CV] | 1.6814 | 4.4869 | | |
| MCT Std 2 [%DIFF] | | 6.3750 | | |
| MCT Std 3 [MEAN] | 0.5145 | 0.9920 | | |
| MCT Std 3 [SD] | 0.0148 | 0.0566 | | |
| MCT Std 3 [%CV] | 2.8861 | 5.7025 | | |
| MCT Std 3 [%DIFF] | | -0.8000 | | |
| MCT Std 4 [MEAN] | 0.3730 | 1.8595 | | |

# MICROCYSTINS ADDA 546_ - Assay Calibration Report

| Name | Absorbance | Concentration | Interpretation | Position |
|---|---|---|---|---|
| MCT Std 4 [SD] | 0.0042 | 0.0431 | | |
| MCT Std 4 [%CV] | 1.1374 | 2.3196 | | |
| MCT Std 4 [%DIFF] | | -7.0250 | | |
| MCT Std 5 [MEAN] | 0.2390 | | | |
| MCT Std 5 [SD] | 0.0014 | | | |
| MCT Std 5 [%CV] | 0.5917 | | | |
| MCT 546 LRB 1 [MEAN] | 1.1370 | 0.0480 | | |
| MCT 546 LRB 1 [SD] | 0.0255 | 0.0198 | | |
| MCT 546 LRB 1 [%CV] | 2.2389 | 41.2479 | | |
| MCT 546 Low-CV [MEAN] | 0.8585 | 0.2950 | | |
| MCT 546 Low-CV [SD] | 0.0163 | 0.0184 | | |
| MCT 546 Low-CV [%CV] | 1.8944 | 6.2321 | | |
| MCT 546 LFB 1 [MEAN] | 0.6850 | 0.5440 | | |
| MCT 546 LFB 1 [SD] | 0.0085 | 0.0156 | | |
| MCT 546 LFB 1 [%CV] | 1.2387 | 2.8596 | | |

**Assay Curve**

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.1948
B = 1.1595
C = 0.54334
D = 0.17560
R2 coef = 0.99881
50% = 0.740




*Generated by software version (6.4.1.1171/1085/1.00/0.95) 8/15/2024 4:32:51 PM