

## **Cylindrospermopsin in Brackish Water or Seawater Sample Preparation**

### **1. Intended Use**

For the preparation of brackish water or seawater samples for analysis in the Abraxis Cylindrospermopsin ELISA.

### **2. Sensitivity**

0.15 ppb in brackish water or seawater

### **3. Materials and Reagents Required**

4 mL glass vials with Teflon-lined caps

Micropipettes with disposable plastic tips

Vortex mixer

Timer

Microcentrifuge

Microcentrifuge tubes

ABRAXIS® Cylindrospermopsin Seawater Sample Treatment Reagent (PN 529914)

ABRAXIS® Cylindrospermopsin ELISA Kit (PN 522011)

### **4. Notes and Precautions**

This procedure is intended for use with brackish water or seawater samples. Other matrices should be thoroughly validated before use with this procedure.

### **5. Procedure**

5.1 Weigh 0.1 g of Cylindrospermopsin Seawater Sample Treatment Reagent into a clean, appropriately labeled 4 mL glass vial.

5.2 Add 1 mL of brackish water or seawater sample to the vial.

5.3 Vortex for 1 minute. Allow the sample to settle for 10 minutes.

5.4 Pipette the supernatant into an appropriately labeled microcentrifuge tube. Centrifuge for 5 minutes at 13,000 rpm. The sample will separate into 3 layers: a solid, white precipitate (bottom layer), a clear liquid (center layer), and a very thin white film (on top of the liquid layer).

5.5 Pipette the clear liquid (center layer) into a clean, appropriately labeled 4 mL glass vial. Avoid pipetting the very thin white film.

5.6 Dilute the supernatant 1:3 with DI H<sub>2</sub>O (i.e. 333 µL supernatant and 667 µL DI H<sub>2</sub>O). The sample can then be analyzed using the ABRAXIS® Cylindrospermopsin ELISA Kit.

### **6. Evaluation of Results**

The Cylindrospermopsin concentration in samples is determined by multiplying the ELISA results by a factor of 3. Samples showing a concentration lower than standard 1 (0.05 ppb) should be reported as containing < 0.15 ppb of Cylindrospermopsin. Samples showing a higher concentration than standard 6 (2.0 ppb) can be reported as containing > 6 ppb of Cylindrospermopsin or diluted further and re-analyzed to obtain an accurate quantitative result.

### **7. Performance Data**

Samples containing various concentrations of seawater were spiked with Cylindrospermopsin, prepared as described above, and then analyzed using the Cylindrospermopsin Assay. Average recovery was 89.6%.

### **8. For ordering or technical assistance contact**

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