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 tubes
Microcentrifuge
Cylindrospermopsin Seawater Sample Treatment Reagent
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 labeled4 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 at13,000 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 pipettingthe very thin white film.
5.6 Dilute the supernatant 1:3 with DI H_2O (i.e. 333 µL supernatant and 667 µL DI H_2O). The sample can thenbe 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
Recovery
Samples containing various concentrations of seawater were spiked with Cylindrospermopsin, prepared as describedabove, and then analyzed using the Cylindrospermopsin Assay. Average recovery was 89.6%.

Gold Standard Diagnostics Horsham, Inc.
795 Horsham Road, Horsham, PA 19044 USA
(215) 357-3911 | info.abraxis@us.goldstandarddiagnostics.com | Website: www.abraxiskits.com

8. For ordering or technical assistance contact:

Gold Standard Diagnostics
795 Horsham Road
Horsham, PA 19044
WEB: www.abraxiskits.com

Phone: (215) 357 3911
Fax: (215) 357 5232
Ordering: info.abraxis@us.goldstandarddiagnostics.com
Technical Support: support.abraxis@us.goldstandarddiagnostics.com

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