QuikLyse™* Cell Lysis
for Microcystins/Nodularins ELISA Microtiter Plate

*QuikLyse™ reagents may be used in a method of U.S. Patent 9,739,777

Product No. 529911QL

1. General Description
The Abraxis QuikLyse™ system is a sample preparation protocol for the rapid lysis of algal blooms prior to ELISA testing. Lysis is necessary to measure total microcystins (dissolved or free, in addition to cell bound).

2. Safety Instructions
Discard samples according to local, state, and federal regulations.

3. Storage and Stability
The QuikLyse™ reagents should be stored in the refrigerator (2-8ºC). The remaining components require no special storage condition and may be stored separately from the reagents to conserve refrigerator space.

4. Limitations, Possible Interferences
Numerous organic and inorganic compounds commonly found in water samples have been tested and found not to interfere with lysis. However, due to the high variability of compounds that might be found in water samples, interferences caused by matrix effects cannot be completely excluded.

Mistakes in handling can also cause errors. Possible sources for such errors include inadequate storage conditions of reagents, too long or too short incubation times, or extreme temperatures during lysis (lower than 10ºC or higher than 30ºC).

5. Warnings and Precautions
Prior to use, ensure that the product has not expired by verifying that the date of use is prior to the expiration date on the label.

Avoid cross-contamination of water samples or reagents by using new disposable pipettes and new disposable filtering tips for each sample filtration.

6. Sample Collection and Handling
Collect water samples in glass containers and test within 24 hours. If samples must be held for longer periods (up to 5 days), samples should be refrigerated. For longer storage periods, samples should be kept frozen.

7. Materials Provided
- Lysis Reagent A, two amber glass vials, 2.5 mL each
- Lysis Reagent B, one amber glass vial, 0.5 mL
- Disposable Pipettes, 45
- Filtering Tips, 45

8. Additional Materials Required (not provided with kit)
- Glass vials with caps
- Micro-pipettes with disposable plastic tips (10-1000 µL)
- Timer

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- Abraxis Microcystins/Nodularins (ADDA) ELISA Kit (Microtiter Plate) PN 520011, Abraxis Microcystins/Nodularins (SAES) ELISA Kit (Microtiter Plate) PN 520011SAES or Abraxis Microcystins/Nodularins DM ELISA Kit (Microtiter Plate) PN 522015, Abraxis Cylindrospermopsin ELISA Kit (Microtiter Plate) PN 522011.

9. Test Preparation

Allow the QuikLyse™ reagents to warm to room temperature before use.

10. Procedure

10.1. Transfer 1 mL of sample to a glass vial.

10.2 Add 100µL of QuikLyse™ Reagent A to the sample in the vial. Cap and shake for 2 minutes. Incubate for 8 minutes at room temperature.

10.3. Add 10µL of QuikLyse™ Reagent B to the sample in the vial. Cap and shake for 2 minutes. Incubate for 8 minutes at room temperature.

10.4. Draw **less than half** of the treated sample into a disposable pipette (provided). Place a filtering tip (provided) firmly onto the disposable pipette. **Warning: Sample will leak if pipette and tip are not pressed tightly together!**

10.5. Squeeze the pipette bulb gently, filtering the sample dropwise into a clean glass vial. The filtering tip can be removed and reattached to filter the entire lysed sample, if desired.

10.6. The lysed, filtered sample is now ready for analysis with one of the Abraxis Microcystins ELISA Microtiter Plate Kits. *Note: Results obtained with samples prepared using the QuikLyse™ system must be multiplied by 1.11 to correct for sample dilution from the QuikLyse™ reagents.*

11. Performance Data

Cell Lysing

When comparing 14 samples from different sources lysed using the QuikLyse™ reagents and lysed using the freeze and thaw method (3 times), then filtered, average recovery obtained was 93.6%, SD = 16.7%.

12. Assistance

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