ABRAXIS® Saxitoxins Seawater Standards

Product No. 52255SW

1. Intended Use

For the detection of Saxitoxin in seawater samples.

2. Safety Instructions

The standard solutions in the test kit contain small amounts of Saxitoxin. In addition, the substrate solution contains tetramethylbenzidine and the stop solution contains diluted sulfuric acid. Avoid contact of stop solution with skin and mucous membranes. If these reagents come in contact with the skin, wash with water.

3. Storage and Stability

The ABRAXIS® Saxitoxin ELISA Kit should to be stored in the refrigerator (2-8°C). The solutions must be allowed to reach room temperature (20-25°C) before use. Reagents may be used until the last day of the month as indicated by the expiration date on the box. Consult state, local, and federal regulations for proper disposal of all reagents.

4. Notes and Precautions

To obtain accurate results when analyzing seawater samples using the ABRAXIS® Saxitoxin ELISA Kit, ABRAXIS® Seawater Matrix Standards and an alternate testing procedure are necessary. Seawater samples which exceed the calibration range of the assay must be diluted using the ABRAXIS® Seawater Matrix Sample Diluent and re-analyzed. Do not dilute seawater samples with ABRAXIS® 1X Saxitoxin Sample Diluent (provided in the ABRAXIS® Saxitoxin ELISA Kit), as this diluent is intended for use with shellfish or freshwater samples and will cause inaccurate results when used with seawaters.

Saxitoxin is an intracellular, as well as extracellular, toxin. Therefore, to measure total Saxitoxin, cell lysing will be required. Three freeze/thaw cycles are recommended for cell lysing. This procedure using the three freeze/thaw cycles will not degrade Saxitoxin.

5. Working Instructions

A. Materials Provided

Standards (6)l: 0, 0.02, 0.05, 0.1, 0.2, 0.4 ng/mL STX-diHCl, 1.5 mL each
Seawater Matrix Sample Diluent, 25 mL

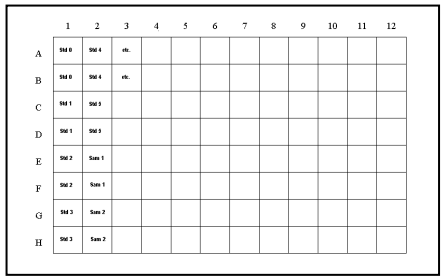
B. Additional Materials (not delivered with the test kit)

ABRAXIS® Saxitoxin (PSP) ELISA Kit (PN 52255B)

C. Working Scheme

The microtiter plate consists of 12 strips of 8 wells, which can be used individually for the test. The standards must be run with each test. Never use the values of standards which have been determined in a test performed previously.

Std 0-Std 5: Standards 0; 0.02; 0.05; 0.1, 0.2, 0.4 ppb
Sam1, Sam2, etc.: Samples



D. Assay Procedure

1. **Add 50 µL of the ABRAXIS® Seawater Matrix Saxitoxin Standard Solutions or seawater samples** into the wells of the test strips. Analysis in duplicates or triplicates is recommended.
2. **Add 50 µL of antibody solution** to the individual wells successively using a multi-channel or stepping pipette. Cover the wells with parafilm or tape and mix the contents by moving the strip holder in a circular motion on the benchtop for about 30 seconds. Be careful not to spill the contents. Incubate the strips for 15 minutes at room temperature.
3. **Add 50 µL of enzyme conjugate solution** to the individual wells successively using a multi-channel or stepping pipette. Cover the wells with parafilm or tape and mix the contents by moving the strip holder in a circular motion on the benchtop for about 30 seconds. Be careful not to spill the contents.
4. **Incubate the strips for 90 minutes at room temperature**.
5. Decant the contents of the wells into an appropriate waste container. **Wash the strips four times using the 1X washing buffer solution. Please use at least a volume of 300 µL of washing buffer for each well and each washing step.** Remaining buffer in the wells should be removed by patting the plate dry on a stack of paper towels.
6. **Add 100 µL of color (substrate) solution** to the wells successively using a multi-channel or stepping pipette. Cover the wells with parafilm or tape and mix the contents by moving the strip holder in a circular motion on the benchtop for about 30 seconds. Be careful not to spill the contents. Incubate the strips for 30 minutes at room temperature, protected from direct sunlight.
7. **Add 100 µL of stop solution** to the wells successively using a multi-channel or stepping pipette.
8. **Read the absorbance at 450 nm** using a microplate ELISA photometer within 15 minutes after the addition of the stopping solution.

E. Evaluation of Results

Results are determined as described in the ABRAXIS® Saxitoxin ELISA Kit user's guide.

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