ABRAXIS® Saxitoxin in Seawater Sample Analysis

1. Intended Use

For the detection of Saxitoxin in seawater samples.

2. Materials Required

ABRAXIS® Seawater Matrix Saxitoxin Standards (PN 52255SW)
ABRAXIS® Seawater Matrix Sample Diluent (PN 53001L)
ABRAXIS® Saxitoxin (PSP) ELISA Kit (PN 52255B)

3. 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 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. Once the sample is preserved, three freeze/thaw cycles are recommended for cell lysing. This procedure using the three freeze/thaw cycles will not degrade Saxitoxin.

4. Assay Procedure

1.1 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.

1.2 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.

1.3 Add 50 µL of enzyme conjugate solution to the individual wells successively using a multi-channel orstepping pipette. Cover the wells with parafilm or tape and mix the contents by moving the strip holderin a circular motion on the benchtop for about 30 seconds. Be careful not to spill the contents.

1.4 Incubate the strips for 90 minutes at room temperature.

1.5 Decant the contents of the wells into an appropriate waste container. Wash the strips four times usingthe 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 dryon a stack of paper towels.

1.6 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.

1.7 Add 100 µL of stop solution to the wells successively using a multi-channel or stepping pipette.

1.8 Read the absorbance at 450 nm using a microplate ELISA photometer within 15 minutes after the addition of the stopping solution.

5. Evaluation of Results

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

6. For ordering or technical assistance contact:

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