

ENVIROLOGIX Inc. - Environmental & Food Monitoring Kits: Pesticides

SYNTHETIC PYRETHOIDS (ELISA Kit)

● Intended use

This Kit Is Designed To Quantitate Synthetic Pyrethroid Residues In Methanol Extracts Of Various Samples. The Range Of The Assay Is From 4 To 80 Parts Per Billion (Ppb) Of Cyfluthrin In Methanol Extracts. These Cyfluthrin Calibrators May Be Used To Quantitate Cyfluthrin, And To Approximate Deltamethrin, Cypermethrin, And Lambda-Cyhalothrin Residues, As The Assay Cross-Reactivity For These Compounds Is Nearly Equal. To Assay Quantitatively For Other Synthetic Pyrethroids, Contact Xygen Diagnostics For Alternative Calibrator Materials.

● General

The EnviroLogix Synthetic Pyrethroid Plate Kit is a competitive Enzyme-Linked ImmunoSorbent Assay (ELISA). In the test, synthetic pyrethroid pesticide residues in the sample compete with enzyme horseradish peroxidase)-labeled cypermethrin for a limited number of antibody binding sites on the inside surface of the test wells. After a simple wash step, the outcome of the competition is visualized with a color development step. As with all competitive immunoassays, sample concentration is inversely proportional to color development.

Darker color = Lower concentration

Lighter color = Higher concentration

The EnviroLogix Synthetic Pyrethroid Plate Kit can be used in the following applications:

- Grain Storage Protection.
- Drinking Water Monitoring.
- Treated Effluent Monitoring.
- Run-Off Assessment And Monitoring.
- Source Water Protection.
- Treatment Chemical Efficacy.

Materials Provided:	Materials Required But Not Provided:
<ul style="list-style-type: none"> - 8 x Strips of 12 Antibody-Coated Wells each, in plate frame. - 1 x Vial of Synthetic Pyrethroid Negative Control (neat methanol). - 1 x Vial of 4 ppb Cyfluthrin Calibrator, in methanol. - 1 x Vial of 20 ppb Cyfluthrin Calibrator, in methanol. - 1 x Vial of 80 ppb Cyfluthrin Calibrator, in methanol. - 1 x Vial of Sodium Hydroxide Solution (0.2 N). - 1 x Bottle of Cypermethrin-enzyme Conjugate. - 1 x Bottle of Substrate. - 1 x Bottle of Stop Solution. 	<ul style="list-style-type: none"> - Methanol, ACS Reagent Grade for sample extraction. - Distilled Or Deionized Water for calibrator and sample extract dilution. - Glass Vials or test tubes for preparing dilutions. - Positive-Displacement Pipettor with disposable tips and plungers capable of delivering 100 microliters (μL) and 1 milliliter (mL). - Repeating Pipettor, with syringe tip capable of delivering 25 μL and 2 mL (also 3 syringe tips for delivering 100 μL if you use the repeater to deliver conjugate, substrate and stop in the assay). - Vortex Mixer. - Disposable Tip, Adjustable Air Displacement Pipette which will measure 100 μL. - Marking Pen. - Tape or Parafilm. - Timer. - Cool Tap Or Distilled Water for rinsing wells. - Microtiter Plate Reader or strip reader. - Microtiter Plate Washer (optional). - Twelve-Channel Pipette that will deliver 100 μL (if more than 3 strips are run per assay). - Racked Dilution Tubes for loading samples into the plate with a 12-channel pipette (see previous statement). - Orbital Plate Shaker (optional).

Kit Specifications:	
Plate Format:	- 96 Well.
Time Requirement:	- 2 h 10 min.
Detection Limit:	- 2.5 ppb.
Quantification Limit:	- 4 ppb.
Cross Reaction:	- Cyfluthrin (2.5 ppb).
(Limit of Detection)	- Deltamethrin (1.0 ppb).
	- Cypermethrin (1.7 ppb).
	- Lambda-Cyhalothrin (0.8 ppb).
Measurement:	- Microtiter Plate Reader or strip reader.
Product ID #:	- EP012.