

# ENVIROLOGIX Inc. - Human Exposure Monitoring Kits

## METOLACHLOR MERCAPTURATE (ELISA Kit)

### ● Intended use

The Envirologix Metolachlor Mercapturate In Urine Plate Kit Is Designed For The Quantitative Laboratory Detection Of Metolachlor Mercapturate Residues In Human Urine Samples, With A Quantitative Assay Range From 8 To 85 Parts Per Billion (ppb).

### ● General

The EnviroLogix Metolachlor Mercapturate in Urine Plate Kit is a competitive Enzyme-Linked ImmunoSorbent Assay (ELISA). In the test, Metolachlor Mercapturate residues in the sample compete with an enzyme (horseradish peroxidase) labeled Metolachlor Mercapturate analogue 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 Metolachlor Mercapturate in Urine Plate Kit can be used in the following testing applications:

- Human Exposure Monitoring (Applicators, Handlers, Farm Workers).
- Public Health Screening Programs.
- Health Risk Assessment.

Materials Provided:	Materials Required But Not Provided:
<ul style="list-style-type: none"><li>- 8 x Strips of 12 Antibody-Coated Wells each, in plate frame.</li><li>- 1 x Vial of Negative Control.</li><li>- 1 x Vial of 8 ppb Metolachlor Mercapturate Calibrator (Actual Concentration = 0.16 ppb*)</li><li>- 1 x Vial of 25 ppb Metolachlor Mercapturate Calibrator (Actual Concentration = 0.5 ppb*).</li><li>- 1 x Vial of 85 ppb Metolachlor Mercapturate Calibrator (Actual Concentration = 1.7 ppb*).</li><li>- 1 x Bottle of Enzyme Conjugate.</li><li>- 1 x Bottle of 10x Sample Diluent.</li><li>- 1 x Bottle of Substrate.</li><li>- 1 x Bottle of Stop Solution.</li></ul> <p>* The difference between the stated and actual concentration is to correct for the 1:50 dilution required for sample preparation.</p>	<ul style="list-style-type: none"><li>- Disposable Tip, Adjustable Air Displacement Pipette which will measure 980 microliters (µL), 100 µL, and 20 µL.</li><li>- Glass Test Tubes.</li><li>- Marking Pen (indelible).</li><li>- Tape or Parafilm.</li><li>- Timer (1 hour and 30 minutes).</li><li>- Distilled Water.</li><li>- Cool Tap Or Distilled Water for rinsing wells.</li><li>- Microtiter Plate Reader or strip reader.</li><li>- Microtiter Plate Washer (optional).</li><li>- Twelve-Channel Pipette that will measure 100 µL (optional).</li><li>- Racked Dilution Tubes for loading samples into the plate with a 12-channel pipette (optional).</li><li>- Orbital Plate Shaker (optional).</li></ul>

### Kit Specifications:

Plate Format:	- 96 Well.
Time Requirement:	- 2 h 15 min.
Detection Limit:	- 5 ppb.
Quantification Limit:	- 10 ppb.
Cross Reaction:	- Metolachlor Mercapturate (5 ppb).
(Limit Of Detection)	- Alachlor Mercapturate (63 ppb).
	- Atrazine Mercapturate (510000 ppb).
	- Acetochlor Mercapturate (175 ppb).
	- Metolachlor ESA (40 ppb).
	- Alachlor ESA (915 ppb).
	- Acetochlor ESA (9050 ppb).

Measurement:  
Product ID #:

- Microtiter Plate Reader or strip reader.
- BP002.