Catalog Number：MBS281260

Size: 100 Tests

Instruction manual

Organophosphorus pesticide residue Test Kit

【*INTENDED USE*】

Residues of **organophosphorus** and **carbamate pesticides** in **vegetable**, **fruit**, **water** and so on.

This package insert must be read in its entirety before using this product.

In order to obtain higher efficiency service, please ready to supply the lot number of the kit to us (found on the outside of the box).

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.

【*REAGENTS AND MATERIALS PROVIDED*】

Reagents	Quantity	Reagents	Quantity
150 Samples/Box	1	Instruction manual	1
Cholinesterase	8 Bottle	50 mL Centrifuge Tube	2 pc
Subtract	2 Bottle	5 mL Centrifuge Tube	10 pc
Color agent	2 Bottle	1 mL Straw	10 pc
Buffer Solution	3 Bag	Color Card	1 pc

Remark：50 mL Centrifuge Tube、5 mL Centrifuge Tube and 1 mL Straw could be repeatedly used after cleaning.

【*TESTING PRINCIPLE*】

The catalytic ability of Cholinesterase has a positive correlation with its activity, while the pesticides of the vegetable has an inhibitory effect on the enzyme activity. And the extent of inhibition has a linear correlation with the toxicity of pesticide residue in a certain range. After enzyme catalysis decomposed, the decomposition instantaneously reacts with color agent, quantitatively generates yellow compound. The color shade of the solution has a negative correlation with the pesticide residue.

【*REAGENTS PREPARATION*】

※ **Buffer reagent:** Pour a small bag of buffer reagent into a container, add 500 mL distilled water, shake it till dissolved and reserve it in normal temperature.

※ **Enzyme reagent:** Take a bottle of enzyme reagent, pour 2.0 mL distilled water into it, shake it softly until it is fully dissolved. Prepared enzyme reagent should be stored in 0~5°C environmental condition when not in use. Do not freeze!

※ **Subtract:** Add 8 mL of distilled water to the subtract bottle, shake it softly until it is fully dissolved and mixed, reserve it in 0~5°C.

※ **Color agent:** Add 8 mL buffer solution to the reagent bottle, shake it softly until it is fully dissolved and mixed, reserve it in 2~8°C.

【*TECHNICAL SPECIFICATIONS*】

Lower limit of detection: 5% inhibition ratio.

【*SAMPLE PRE-TREATMENT*】

1. Put some samples with clean surface of accurate weight 2.0g (get the blade part of vegetable, or one piece of peel of fruit and melon, etc) in the 50 mL centrifuge tube.
2. Add 10 mL buffer solution to the 50 mL tube (with sample already), oscillate it for 2 minutes, and get 2.5 mL clear liquid as sample extract in the 5 mL centrifuge tube. (If the sample is relatively turbid, you could filter

it to get supernatant liquid.)

3. Water samples can be used directly (Aquaculture environment water).

【*TESTING PROCESS*】

Add 0.1 mL enzyme agent and 0.1 mL color agent (all by pipette) to the 2.5 mL sample extract, shake it well and put it in 37°C thermostat, take it out after 15 minutes; add 0.1 mL subtract (by pipette), shake it well and lay it aside for 3 minutes, then you could read out the corresponding content of pesticide residue through a contrast observation with the color scale card.

【*IMPORTANT NOTE*】

1. All of mentioned prepared reagents should be refrigerated and used out in 15 days.
2. Enzyme agent and subtract should be stored in -20°C before dissolved.
3. Before usage, the reagent should be placed in normal temperature for more than 1 hour till it is closes to the room temperature.
4. Do not put the enzyme and subtract at room tor a long time, put them in 2-8°C immediately after a period of usage (one morning or one afternoon).
5. For the vegetables and fruit with much pigment (such as potatoes, strawberry and Chinese kale), it is better to extract whole grain or whole piece, and the addition of extracting solution should be adjusted according to the proportion.