

Pesticide Detection Kit [PESTi-KIT] for Food & Water Samples

Introduction

Pesticides are widely being used to increase the yield instantly which is directly related to the economic impact on the farmer. However, the over dose and uncontrolled usage of pesticides is linked with many ill health hazards. The availability of easy to use kits can ensure that the pesticides are not used in excess to the defined concentrations and can avoid the cases of rejection during export which exhibits huge economic loss to the country.

The kit/ developed by CSIR-CSIO is capable of detecting pesticides in ppb level in food and water. The kit is easy to use with minimal sample preparation without requiring huge sophisticated laboratory restricted instruments.

Salient Features of kit as compared to conventional methods

Conventional methods	Uniqueness of Pesticide detection kit
<ul style="list-style-type: none">○ Analytical technique such as HPLC, LC/MS/MS & GC○ Time consuming○ Labour intensive○ Expensive instruments○ Require exhaustive sample preparation	<ul style="list-style-type: none">○ Low cost strip○ Multiple Analyte Detection: Parathion, Malathion, Chlorpyrifos, Carbofuran & Diuron○ Visual detection○ Easy to use○ Minimal sample preparation○ Point -of - site use○ Sensitivity: As low as 1 ppb



Technical Specifications

- Method: Dip method
- Sample type: Extracted sample
- Measuring Range: 1 ppb to 5 ppm
- Storage: 2-8 °C
- IPR Status: Patent Filed

Potential Applications

- Detection of pesticides in food and water matrix.
- Helpful in screening the samples for further analysis using sophisticated laboratory equipment.
- Can be used by mobile laboratories, mini testing labs.
- Useful for growers, suppliers, or processors.
- Open ended platform. By change of bioreceptors, card can be used for many other analytes but at card manufacturer's end.