



pesticide test, pesticide residue testing

Model: **APEX-JCX565**

Standard: **GB/T5009.199-2003**

Introduce: **Pesticide residue fast analyzer is commonly used food lab equipment. This product uses the enzyme inhibition rate method , using a national standard G...**

Detailed product information

APEX-JCX565 Pesticides Residues Fast Analyzer

First, pesticide test,pesticide residue testing introduction

Pesticide residue fast analyzer is commonly used [food lab equipment](#). This product uses the enzyme inhibition rate method , using a national standard GB/T5009.199-2003, rapid detection of pesticide residues in the sample , is widely used in vegetables, fruits , grains, tea and soil quickly detect organophosphate and carbamate pesticide residues . Suitable for all levels of agricultural testing centers , production bases, farmers markets , supermarkets, health, environmental protection , hotels and other fields.

Second, the pesticide test,pesticide residue testing characteristics

1 instrument plastic enclosure , streamlined design (appearance patent number : ZL200830111211.8), specially treated surface oxidation.

2 large-screen LCD display screen with tempered glass protection , anti- scratch , clear screen , user-friendly interface , intuitive readings .

3 soft keys , life up to 500,000 times , waterproof, dustproof, can be cleaned , disinfected , anti-bacterial , anti-static, use noiseless operation fast response characteristics.

4 , a new optical system , making this product has excellent optical performance, high accuracy, long-term stability of the characteristics of the instrument , is the most advanced and practical analytical instruments.

5 , light -emitting diode , has the advantage of energy saving, environmental protection , energy saving , long life , fast response and so on.

6 , 8 channel testing technology , one can detect eight samples simultaneously display the measurement results.

7 , high sensitivity, methamidophos , dichlorvos and other pesticides minimum detection limit is better than national standards.

8 , color kit , sample and reagent consumption , to prevent secondary pollution.

9 , the internal microprocessor power lines , light and other self- diagnosis.

10 , can be readily detected by testing dates and number access , print , delete the stored measurement data.

11 , the instrument is equipped with RS-232 interface and USB interface for data processing by computer , statistical analysis and remote instrument control program upgrades .

12 , a powerful surveillance network information , including measurement data systems and monitoring and management system , the implementation of several sets , statistics , query, exchange and printing. Remote monitoring and management can be effectively implemented .

13 , with a car power supply interface , user-friendly equipment for mobile testing vehicles .

14 , to provide a complete attachment configuration, the use of beautiful , durable aluminum toolbox , user-friendly operation at a fixed or mobile laboratory laboratory .

Third, the pesticide test,pesticide residue testing detection principle

Pesticide residue fast analyzer is commonly used [food lab equipment](#) . Under certain conditions , organophosphate and carbamate pesticides on cholinesterase inhibition of the normal function of the concentration of the inhibition rate was positively correlated with the pesticide . Under normal circumstances , the enzymatic metabolism of nerve conduction (acetylcholine) hydrolysis product of hydrolysis reaction with chromogenic agent , a yellow substance was measured by a spectrophotometer absorbance at 412nm with time variation value , the inhibition rate calculated by the inhibition rate can determine whether the sample contains residual organophosphate or carbamate pesticides. This method has become the national standard method (GB/T5009.199-2003).

Fourth, the technical parameters

Light current stability : $\leq 1\%$ T/3min

Transmittance accuracy : $\leq 1.5\%$ T

Transmittance Repeatability : $\leq 0.5\%$ T

Wavelength : 412nm

Number of channels : 8 inhibition rate

Measuring range : 0 to 100%

Chromogenic test reaction time : 1 ~ 999s optional

Instrument Dimensions : 380mm380mm170mm

Fifth, the instrument under normal operating conditions

1 , ambient temperature 5℃ ~ 35℃. Indoor relative humidity less than 85%.

2 , the instrument should be placed on a stable work surface , no direct sunlight and strong electromagnetic interference .

3 , interior non-corrosive gases

4 , Power Supply : A, Input 100 ~ 230VAC 50Hz/60Hz B, 12V vehicle power supply (optional)

Sixth, pesticide test,pesticide residue testing use

1 , the boot

Plug in the power , turn the power switch on the back of the green instrument , the instrument displays the boot screen , press the screen prompts, press the Enter key , the instrument starts a self-test , for about 1min. After the self-test is completed , the instrument into standby detection state.

2 , reagent preparation (reagents : AB204 pesticide speed test agent)

2.1 , buffer : Take a packet buffer was added 500mL distilled water or purified water , stirred and dissolved to prepare a phosphate buffer solution (pH7.5), at room temperature.

2.2 Reagent : Take a bottle of reagent added 25mL buffer solution , when used to take 100μL , 4℃ refrigerator.

2.3 , substrate : Take a bottle plus 12.5mL matter dissolved in distilled water or purified water , when used to take 100μL , 4℃ refrigerator ; or take a bottle plus 2.5mL matter dissolved in distilled water or purified water , taken when using 20μL , 4℃ refrigerator.

2.4 cholinesterase : without enzyme preparation, direct access , when used to take 100μL , 4℃ refrigerator.

3 , sample extraction

Take 2g fruit and vegetable samples (tubers take 4g), leafy vegetables cut into pieces about 1cm square , cross-sectional sample taken tubers or whichever epidermis , into the flask , add 10mL buffer, shaking 1 ~ 2min, pour The extract was allowed to stand for 2min, tested . If too many impurities can be filtered extract turbidity or after the test .

4 , the test

4.1 , the control test : the reaction flask 2.5mL buffer, then were added to 100μL enzyme solution and reagent , mix and let stand 10min reaction after adding 100μL (or 20μL) substrate , shake and immediately pour over cuvette and timely measurement chamber into the instrument channel 1 , close the lid . Press keys below the display after a delay 10s, measuring time starts countdown timer is completed, the display shows the absorbance increment (ΔA0) and inhibition.

During the control test , 2 to 8 channels can be simultaneously sample testing . 4.2 , sample test : the reaction flask 2.5mL test solution , and then were added to 100μL enzyme solution and reagent , mix and let stand 10min reaction after adding 100μL (or 20μL) substrate , shake and immediately pour cuvette into the instrument's measurement chamber timely passage , close the lid . Press <M> keys below the display after a delay 10s, measuring time starts countdown timer is completed, the display shows the absorbance increment (ΔA1) and inhibition. Data is automatically saved , if necessary, by <P> button to print.

Sixth, the results of determination

To spectrophotometer (412nm wavelength) , the inhibition rate calculated as follows :

Inhibition rate (%) = $[(\Delta A0 - \Delta A1) / \Delta A0] \times 100$

Quick Test to pesticide residues detected when the inhibition rate is generally calculated automatically. If the sample inhibition rate $\times 50\%$, said sample excessive pesticide residues , as a positive result . Samples positive results need to do more than 2 times duplicate detection , multiple testing still positive gas chromatography instruments required for further confirmation.

Seven,pesticide test,pesticide residue testing advantages detection

Pesticide residue fast analyzer is commonly used [food lab equipment](#).

1 , at room temperature for color reaction , without constant temperature , short detection time .

2 , using the latest detection methods, effectively overcome the interference of endogenous substances in fruits and vegetables can be tested onions, ginger , garlic, leeks and carrots and other spicy and colored samples.

3 , the enzyme reagent has excellent thermal stability , high temperature heat to facilitate the transport and storage of the season.

4 , pesticide residue detection reagent to detect the Ministry of Agriculture , pesticide project meets its detection sensitivity GB/T 5009.199-2003 and agriculture industry standards NY/T 448-2001 prescribed , with a test report.

Eight additional instructions

1 , packaging and preservation : pesticide -speed test agent containing buffer 10 packets , cholinesterase 10 bottles , 2 bottles of reagent , substrate 4 bottles for 500 samples tested , whole box before using the reagents should be kept in 4℃ refrigerator shelf life of 12 months ; at room temperature or at room temperature , shelf life of three to six months.

2 , the use of reagents : any reagent used to open a bottle with a bottle , exhausted after using new agents to prevent deterioration.

3 , only the reagents Nothing principle : When testing, sucked out from any reagent bottle reagent , reagent bottle ban injected back again .

4 , special principles appliances : Any equipment and containers for each pipetting should be labeled, used alone , to avoid cross -contamination.

5 , the detection operation using pipettes and liquid discharge process , the need to appropriately control the tempo in order to avoid excessive absorption of subretinal fluid solution or the amount of lead allowed to add reagents , and help protect the pipette device .

6 , the instrument may be common to the national standards by industry standards NY/T448-2001 GB/T5009.199 and detection reagents . Use reference reagents supporting manual.

7 , a more detailed instrument operation, refer to the instructions accompanying the product