

Innovative Pesticide Residue Test Kits for Food Safety Monitoring

Pesticide residues are small amounts of pesticides that remain in organisms, agricultural products (or food), and the environment after pesticide use. In addition to the pesticides themselves, pesticide residues also include toxic metabolites and impurities, which are collectively referred to as pesticides and other related substances. There are more than 1000 pesticides used worldwide to ensure food is not damaged or destroyed by pests. Residues are an inevitable phenomenon after the application of pesticides, but if they exceed the maximum residue limit, they can cause adverse effects on humans and animals or pose a risk of toxicity to organisms in the ecosystem through the food chain. With years of experience in immunological research, Creative Diagnostics has developed a portfolio of highly sensitive pesticide residue ELISA test kits.

Features of Kit Assay:

- High sensitivity and reproducibility
- Validated in a variety of detection samples
- Lot-to-lot consistency
- Passed 14-day stability test
- Faster and simpler than LC-MS/MS

Performance Characteristics

Precision

Repeatability was evaluated on 3 samples under constant and varying parameters.

Spinosyn ELISA Kit (DEIA6870)

Intra-Assay (n = 32)			Inter-Assay (n = 16)		
Sample	Mean Value [ng/ml]	CV [%]	Sample	Mean Value [ng/ml]	CV [%]
1	1.67	7%	1	1.69	6%
2	1.86	4%	2	1.80	7%
3	1.99	5%	3	1.89	8%

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Chlorpyrifos ELISA Kit (DEIANJ22)

Intra-Assay (n = 32)			Inter-Assay (n = 16)		
Sample	Mean Value [ng/ml]	CV [%]	Sample	Mean Value [ng/ml]	CV [%]
1	0.86	7%	1	0.84	7%
2	0.82	6%	2	0.78	6%
3	0.79	4%	3	0.80	6%

Recovery

Chlorpyrifos ELISA Kit (DEIANJ22)

The matrices listed below were spiked with a certain level of chlorpyrifos and the recovery rates were calculated by comparing the measured value to the expected amount of chlorpyrifos in the samples.

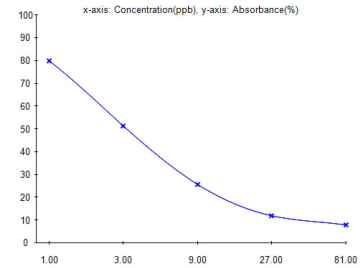
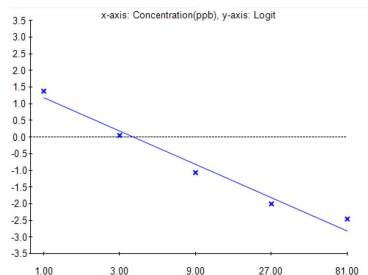
Matrix	Recovery Range (%)	Average (%)
Asparagus (n=5)	78-83%	80%
Barley (n=5)	92-102%	95%
Sesame (n=5)	88-100%	93%

Analytical sensitivity

Spinosyn ELISA Kit (DEIA6870)

IC ₅₀	3.1 ppb
Detection Range	1.0-81.0 ppb
Linearity	99%

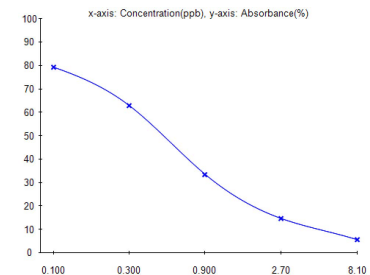
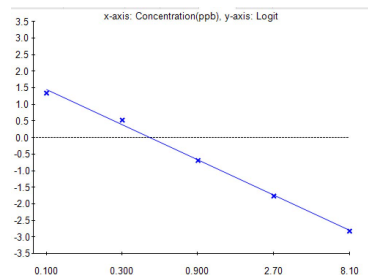
Linear curve & Standard Curve



Chlorpyrifos ELISA Kit (DEIANJ22)

IC ₅₀	0.49 ppb
Detection Range	0.6-48.6 ppb
Linearity	99%

Linear curve & Standard Curve



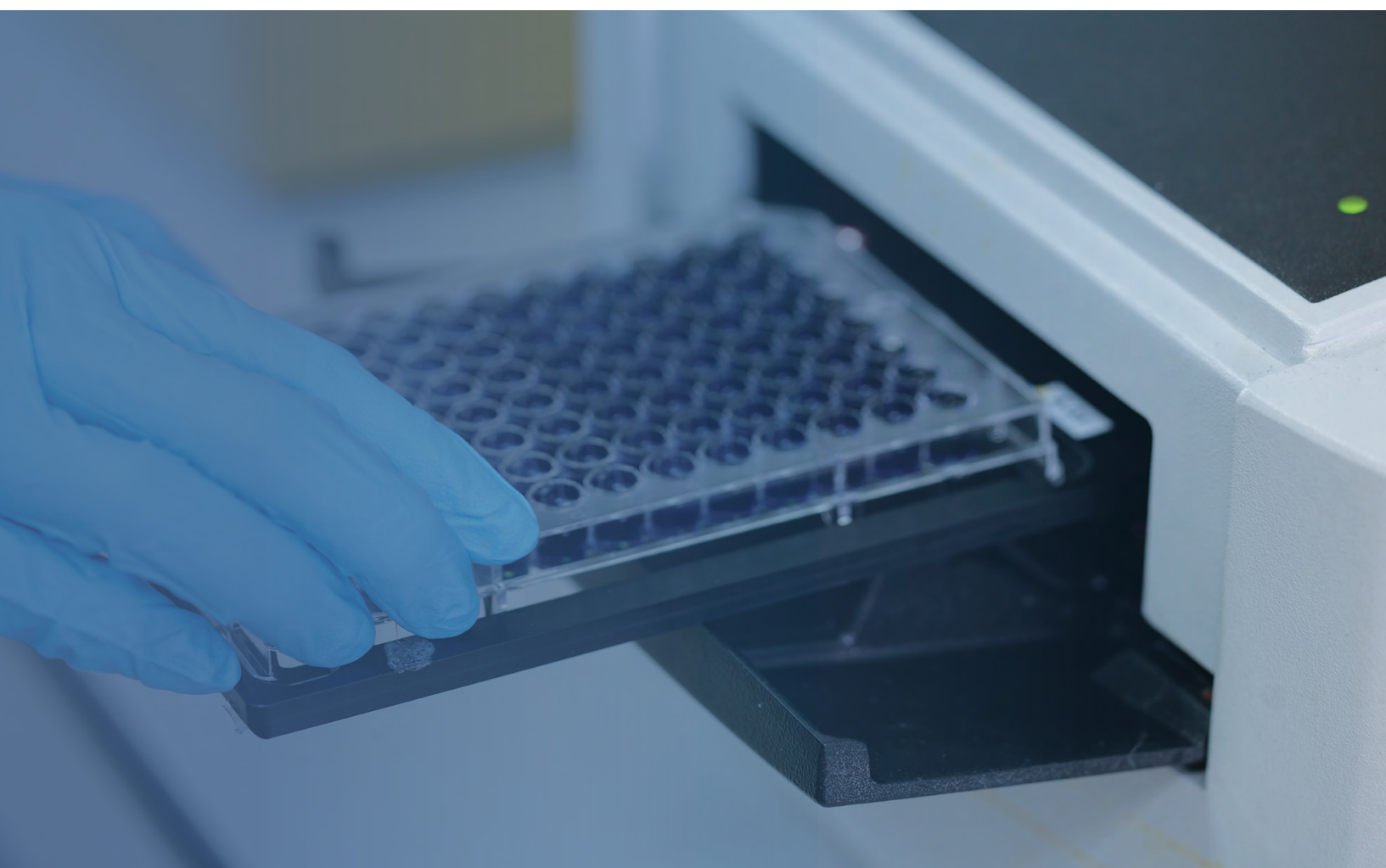
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Product List

Cat.	Product Name	Detection Sample
DEIANJ20	Acetamiprid ELISA Kit	Contaminated samples
DEIA-LL004	Butralin ELISA Kit	Tobacco leaf
DEIA6860	Carbendazim ELISA Kit	Honey, milk, juice and rice, meat, mango
DEIABL-QB57	Carbofuran ELISA Kit	Tea, vegetable
DEIANJ23	Chlorothalonil ELISA Kit	Contaminated samples
DEIANJ22	Chlorpyrifos ELISA Kit	Fruit (apple, orange), vegetables (spinach, potato, cabbage) and cereals (barley, sesame seeds, quinoa)
DEIA042	Colistin ELISA Kit	Beef, pork, chicken
DEIA-BY065	Cyromazine ELISA Kit	Milk, milk powder and animal feed
DEIASL115	Fipronil ELISA Kit	Liquid whole egg
DEIABL-QB52	Imidacloprid ELISA Kit	Water; Juice, Contaminated samples
DEIA-PY0007	Isoprothiolane ELISA Kit	Food
DEIA-BY066	Metalaxyl ELISA Kit	Biological samples
DEIA-PY0008	Myclobutanil ELISA Kit	Food
DEIA-BY067	Procymidone ELISA Kit	Biological samples
DEIA6870	Spinosyn ELISA Kit	Water
DEIANJ08	Sterigmatocystin ELISA Kit	Grain, grain products
DEIA-BY068	Thiamethoxam ELISA Kit	Biological samples
DEIABL-QB58	Triadimefon ELISA Kit	Tobacco
DEIA-BY069	Triazophos ELISA Kit	Biological samples

CREATIVE DIAGNOSTICS

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