

Solutions for Allergen Testing

Rapid · Sensitive · Specific



 **NEOGEN**[®]

Food Safety Through Prevention of Allergen Contamination

A recent review showed that most studies had found that a clinically proven allergy to any food occurs in 1–5% of the total population in Europe.

Food manufacturers protect those with food allergies by clearly labelling their products with a list of ingredients. Testing for the presence of food allergens ensures food manufacturers that an unlabelled—and potentially dangerous—allergen did not make its way into food products.

To help prevent allergen contamination, Neogen has a range of tests that can detect the target allergen in ingredients, clean-in-place rinses, finished foods and on environmental surfaces.

Test Formats and Kits

Reveal® 3-D for Food Allergens

Neogen's Reveal 3-D tests are uniquely designed with 3 lines of detection and can be used to screen for the presence of low levels of allergens in rinses, environmental swabs and validated food products virtually anywhere. Reveal 3-D tests feature a unique overload line designed to prevent saturation and alert the user of a high positive result. Sample preparation and testing takes less than 10 minutes, making them excellent choices for on-site food allergen control. Each kit contains everything needed (including swabs) to perform 10 single use tests.



901031P	Reveal 3-D Gluten	Screens at low ppm levels	10 tests per kit
8479	Reveal 3-D Total Milk	Screens at low ppm levels	10 tests per kit
902082Q	Reveal 3-D Egg	Screens at low ppm levels	10 tests per kit
902093K	Reveal 3-D Soy	Screens at low ppm levels	10 tests per kit
902086G	Reveal 3-D Almond	Screens at low ppm levels	10 tests per kit
902087E	Reveal 3-D Hazelnut	Screens at low ppm levels	10 tests per kit
901041L	Reveal 3-D Peanut	Screens at low ppm levels	10 tests per kit
8519	Reveal 3-D Gliadin	Screens at low ppm levels	20 tests per kit
8405	Reveal 3-D Mustard	Screens at low ppm levels	10 tests per kit
8535	Reveal 3-D Sesame	Screens at low ppm levels	10 tests per kit
902081S	Reveal 3-D Crustacea	Screens at low ppm levels	10 tests per kit

Reveal® for Multi-Treenut

Neogen's Reveal for Multi-Treenut test is a unique and innovative lateral flow test for rapid allergen detection of six tree nuts with one test. Reveal for Multi-Treenut is designed to screen environmental swabs, CIP rinse waters and validated food products for the presence of any one or a combination of almond, hazelnut, pecan, walnut, cashew and pistachio. The test detects allergen levels at low parts per million (ppm) and is perfect for on-site use with results in only ten minutes.



8555	Reveal for Multi-Treenut	Screens at low ppm levels	10 tests per kit
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Alert® for Food Allergens

Neogen's Alert line of microwell food allergen test kits are sandwich enzyme-linked immunoassays (S-ELISAs) that allow for the rapid screening of a food ingredient, food product, CIP rinse waters or environmental sample for the presence of a target food allergen. Each test kit contains all the reagents needed and requires minimal training and additional equipment. In 30 minutes following extraction, testers can visually determine whether a sample contains more or less of a target food allergen than the supplied control (e.g. 5 ppm). The Alert test is ideally suited for testing multiple samples at one time.



8441	Alert for Almond Allergen	Screens at 5 ppm almond	12–20 samples per kit
8451	Alert for Egg Allergen	Screens at 5 ppm whole dried egg	12–20 samples per kit
8481	Alert for Gliadin	Screens at 10 ppm gliadin	12–20 samples per kit
8431	Alert for Peanut Allergen	Screens at 5 ppm peanut	12–20 samples per kit
8411	Alert for Soy Allergen	Screens at 2.5 ppm soy flour	12–20 samples per kit
8471	Alert for Total Milk Allergen	Screens at 5 ppm or 10 ppm non-fat dry milk (NFDM)	12–20 samples per kit
8511	Alert for Gliadin R5	Screens at 10 ppm gliadin	12–20 samples per kit

Veratox® for Food Allergens

Neogen's Veratox microwell food allergen test kits are sandwich enzyme-linked immunoassays (S-ELISAs) that require minimal training and standard laboratory equipment to produce quantitative results in 30 minutes following extraction. The tests provide food processors or laboratories a method of easily determining if an ingredient or product has been subjected to cross-contact with a food allergen. The Veratox format provides easy data tracking and analysis.

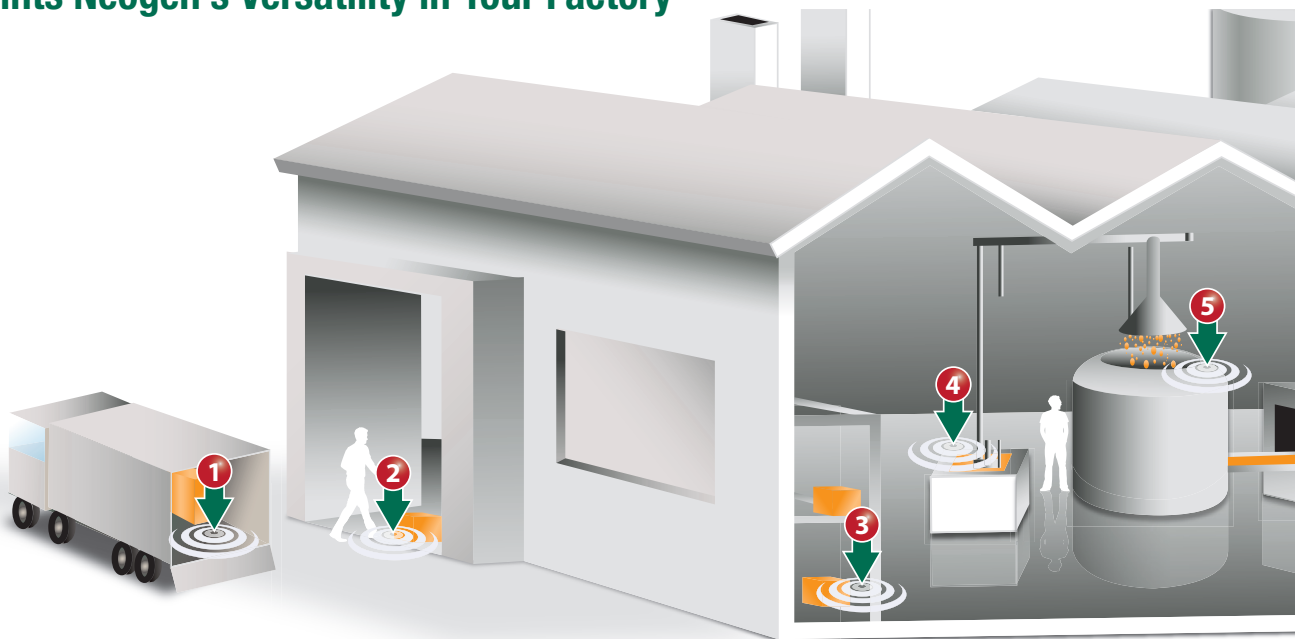


Veratox®

8480	Veratox for Gliadin	Quantitative range of 5 to 50 ppm gliadin	Up to 38 samples
8510	Veratox for Gliadin R5	Quantitative range of 2.5 to 40 ppm gliadin	Up to 38 samples
8470	Veratox for Total Milk Allergen	Quantitative range of 2.5 to 25 ppm non-fat dry milk (NFDM)	Up to 38 samples
8450	Veratox for Egg Allergen	Quantitative range of 2.5 to 25 ppm whole dried egg	Up to 38 samples
8410	Veratox for Soy Allergen	Quantitative range of 2.5 to 25 ppm soy flour	Up to 38 samples
8420	Veratox for Hazelnut Allergen	Quantitative range of 2.5 to 25 ppm hazelnut	Up to 38 samples
8440	Veratox for Almond Allergen	Quantitative range of 2.5 to 25 ppm almond	Up to 38 samples
8430	Veratox for Peanut Allergen	Quantitative range of 2.5 to 25 ppm peanut	Up to 38 samples
8400	Veratox for Mustard Allergen	Quantitative range of 2.5 to 25 ppm mustard	Up to 38 samples
8460	Veratox for Casein	Quantitative range of 2.5 to 15 ppm NFDM*	Up to 38 samples
8520	Veratox for Crustacea	Quantitative range of 2.5 to 25 ppm crustacea	Up to 38 samples
8500	Veratox for Lupine Allergen	Quantitative range of 2.5 to 25 ppm lupine	Up to 38 samples

*Conversion factor available to convert results to ppm casein

The 12 Points Neogen's Versatility in Your Factory



Incoming Goods and Warehouse

- 1 AUDITING SUPPLY CHAIN**
Verify allergen controls
- 2 INCOMING GOODS**
Confirm supplier specifications

- 3 WAREHOUSE**
Ensure robust ingredient segregation and packaging integrity

Processing and Packaging

- 4 FOOD PREPARATION SURFACE**
Validate cleaning and detect cross-contamination
- 5 6 PROCESS EQUIPMENT AND UTENSILS**
Validate cleaning and detect cross-contamination

BioKits for Food Allergens

Neogen's BioKits microwell food allergen test kits are sandwich enzyme-linked immunoassays (S-ELISAs) with the exception of BLG which is an indirect competitive ELISA. They require minimal training and laboratory equipment to produce quantitative results in 75–180 minutes following extraction. The tests provide laboratories or food processors a method of determining if an ingredient or product has been subjected to cross-contact with a food allergen.



BioKits

802002Y	BioKits Gluten	Quantitative range of 3–50 ppm gluten	Up to 91 samples
902048Q	BioKits Peanut	Quantitative range of 1–20 ppm peanut	Up to 91 samples
902072T	BioKits Egg	Quantitative range of 0.5–10 ppm egg white protein	Up to 43 samples
902061Y	BioKits BLG	Quantitative range of 2.5–40 ppm BLG	Up to 43 samples
902085J	BioKits Walnut	Quantitative range of 2.4–120 ppm walnut	Up to 43 samples
902070X	BioKits Sesame	Quantitative range of 6–100 ppm sesame	Up to 43 samples



Finished Product and Warehouse

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|---|---|--|
| <p>7 SPILLAGES
Ensure verification of cleaning</p> <p>8 IN-PROCESS AND RE-WORK
Detect potential cross-contamination</p> | <p>9 FINISHED PRODUCT
Verify product labelling claims</p> <p>10 WAREHOUSE
Ensure robust final product segregation and packaging integrity</p> | <p>11 SPILLAGES
Ensure verification of cleaning</p> <p>12 FINISHED PRODUCT SUPPLY CHAIN
Auditing and enforcement</p> |
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Managing Food Allergens

Food Allergen Risk Assessment

- A major cause of global food recalls is undeclared food allergens
- The cost of non-compliance can be significant
- It is an industry standard to minimise “may contain labelling”

Food Allergen Control System

Take control to protect your brand

- It is a “duty of care” to address a significant food safety risk
- Testing plays an important part in validating critical operations
- Checks take a few minutes and cost very little



Why Neogen’s Food Allergen Test Kits?

Simple and quick, Neogen’s Reveal and Reveal 3-D tests can be implemented more often than laboratory food allergen testing. They can deliver enhanced confidence and protection through increased testing of all critical elements in the production process in “real-time”. Neogen’s full line of quantitative Veratox and BioKits assays also provide food processors and laboratories tools for the allergen-free validation of ingredients, in-process materials and finished product.

- **WHY?**
For real-time decision making
- **WHEN?**
For process control, auditing, inspection, troubleshooting and training
- **WHERE?**
In all areas of the process and supply chain
- **HOW?**
By anyone, anywhere, minimal to no training required

Contract Laboratory Service

Neogen provides the food, beverage and animal feed industries with a complete range of food testing and laboratory analysis to ensure the safety, quality and legality of manufacturing operations.

Continual expansion and investment in new technologies means that we are continually increasing our range of accredited tests*. All of our food testing services are carried out by highly trained scientific staff using state-of-the-art equipment.

Allergen Contract Laboratory Services

Neogen provides a comprehensive range of products and services which can help you to control and manage allergens within your manufacturing facility. Our allergen testing service is available for the analysis of a wide variety of food matrices, CIP rinse waters and environmental swabs using both ELISA and PCR methods. Neogen has expanded its UKAS accreditation* to include the determination of Gluten (Gliadin R5) allergen in food products, environmental swabs and rinse waters.

ELISA Allergen Testing*

Almond	Egg
Gluten	Hazelnut
Peanut	Mustard
Soy	Sesame
Total Milk / Casein / BLG	Crustacea
Walnut	-

Qualitative PCR Analysis*

Celery



* Not all tests are accredited to ISO 17025. For a full list of our accredited tests please refer to our schedule available at www.neogeneurope.com



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