



ALLERGENS

Testing Solutions from Neogen®



Neogen® offers a range of allergen testing solutions and formats to suit your needs.

Lateral Flow Tests

Our newly expanded allergen testing range provides testing solutions for many key allergens including milk, egg and gluten.

Neogen's Reveal® and Allergen Protein Rapid lateral flow tests are simple, easy-to-use lateral flow tests, used to screen for the presence of low levels of allergens on environmental swabs, clean-in-place rinses and validated food matrices.

Why Use Our Lateral Flow Tests?

- **Detects low levels** - Have confidence that our tests can detect low allergen levels to help prevent an unlabelled – and potentially dangerous – allergen making its way into food products
- **Qualitative** – Simply determine the presence or absence of target allergens in your samples, ensuring compliance with regulations and avoiding costly recalls
- **Provides Fast, Actionable Results** - Quick results on the presence of unwanted food allergens to allow products to be released faster and avoid production line stoppages for longer than necessary

Almond	Coconut	Fish	Milk	Pecan	Soy
Casein	Crustacea	Gluten	Mustard	Pistachio	Treenut
Cashew	Egg	Hazelnut	Peanut	Sesame	Walnut

Reveal for Multi-Treenut

We also offer **Reveal for Multi-Treenut**, a unique lateral flow test for the rapid detection of six tree nuts with one simple test.

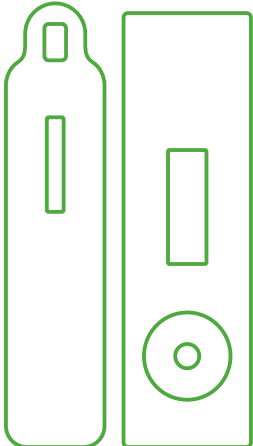
This test is designed to screen for the presence of any one, or a combination of, almond, hazelnut, pecan, walnut, cashew and pistachio.

Innovative Overload Line Design

When testing for allergens with rapid methods such as lateral flow tests, there is a risk that a grossly contaminated sample returns a false negative by overloading the strip.

Our **Reveal 3-D** tests include an innovative overload line that makes it possible to instantly and easily differentiate a high positive result from a negative one.

Perfect for use onsite, our tests provide qualitative results in minutes.





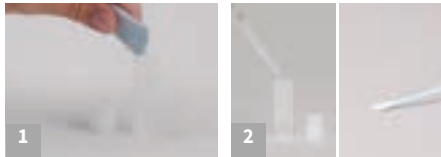
Procedure Snapshot

Our test kits and procedures are simple to follow, please see below example protocols for our lateral flow and ELISA test formats.

Note: Please read kit instructions completely before performing any test.

Example Lateral Flow Test

Reveal Extraction Procedure

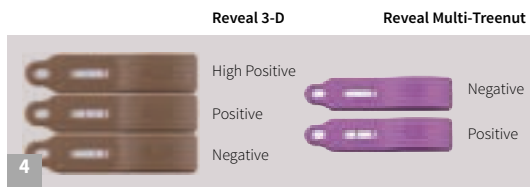


1 Open extraction buffer and add to a sample tube. **2** Add sample to the tube or gather sample and break off the swab into the tube. Secure cap and shake.

Reveal Test Procedure



1 Remove lid and fill with liquid from the tube **2** Dip the device into the liquid in the lid. Leave until the liquid is seen running in the test window. **3** Place the device on a flat surface and allow to develop as per kit instructions.



4 Interpret the results.

Allergen Protein Rapid Test Procedure

One Tube Process

Sample Type

Environmental swab
Clean-in-place (CIP) final rinse water
Raw ingredients
Finished food products



Add to Extraction Buffer
Shake for 15 seconds



Pipette 100 μ L to LFD
Results in 11 minutes \pm 1 minute

Example ELISA Test

Veratox[®] Procedure



1 Add controls and sample extract into red-marked mixing wells.



2 Transfer controls and sample extracts into the clear antibody wells. Incubate as per kit instructions.



3 Dispose of the liquid from the antibody wells and wash wells thoroughly with wash solution.



4 Add conjugate solution into the clear antibody wells. Incubate as per kit instructions.



5 Repeat the wash step.



6 Add substrate solution into the clear antibody wells. Incubate as per kit instructions.



7 Add stop solution into the clear antibody wells.



8 Read antibody wells in a microwell reader with a 650 nm filter and calculate results.

ELISA Tests

Neogen's Veratox or Rapid Protein microwell assays are assays that are perfect for those with laboratories, from food manufacturers to commercial and government laboratories, and provide accurate, quantitative results within 30 minutes following extraction.

Why Use Our ELISA Tests Onsite?

- **Quantitative & Precise Results** - From processing through to production and end product testing, quantitative results can ensure the product is free from cross-contamination and avoid any unnecessary delays
- **Efficient Workflow** - With only minimal training and equipment required, the simple process means less wasted time or resource within your lab
- **Technical Support** - Neogen's dedicated support team has technical expertise to help you with training and technical queries so that you can be confident in your testing

Why Use Our ELISA Tests In Your Commercial Lab Environment?

- **Demonstrable & Precise Methods** - Easily determine the presence of unwanted food allergens in an ingredient or product. Validation reports on the tests parameters and performance characteristics ensure that you are using testing methods adapted to your clients' requirements
- **Batch Testing** - Our ELISA test kits allow you to test multiple samples at a time for a cost effective testing plan
- **Consistent Workflow** - Our protocols are designed so that it is easy to switch between assays, meaning that risk of errors are reduced and training is easier

Neogen's ELISA test kits are available for:

Gliadin	Hazelnut	Coconut	Cashew
Total Milk	Almond	Macadamia	Brazil Nut
Egg	Mustard	Pecan	Walnut
Peanut	Crustacea	Pine Nut	Fish
Soy	Sesame	Pistachio	Mollusk



Training and Support

Our in-depth product training can be delivered where and when you need it. Our talented team are on hand to provide comprehensive training and support tailored to your business needs, from customised sessions catered to all skill levels, to technical troubleshooting and guidance.



LabLive

Our interactive online tool, LabLive, lets us offer you support, training and troubleshooting from the comfort of your own desktop or lab. Our free web service links you directly with technical experts for a personal experience, giving you instant access to support when you need it.

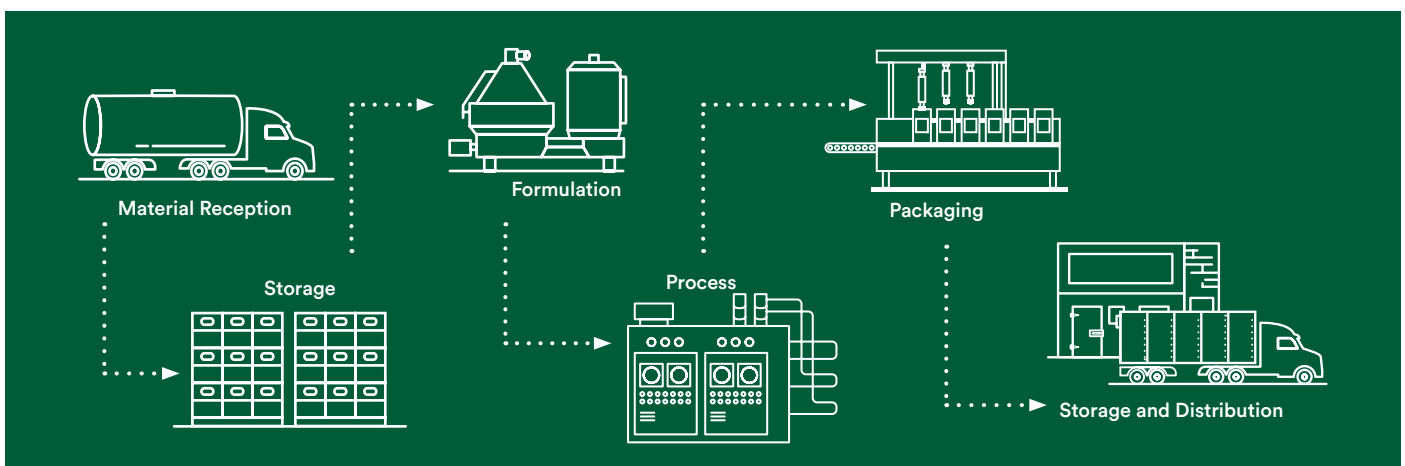


Professional Services

Our on-site team of highly skilled technicians can provide you with the most efficient technical support. For unique commodities, we have an expert team dedicated to evaluating new matrices on our rapid methods.

Developing and Utilizing an Effective Allergen Control Plan

The chart below can help you find the areas within your plant that may require routine allergen testing.



Testing of raw materials and ingredients.

Testing of pre-batch formulations and finished products. Cleaning validation and verification in equipment surface and/or CIP rinse water.

Testing finished products.

We also offer solutions for:

Hygiene Monitoring

Neogen's Clean-Trace® Hygiene Monitoring and Management System can validate the effectiveness of your hygiene monitoring programme by detecting food residues and microorganisms present on surfaces and rinse waters by measuring the amount of adenosine triphosphate (ATP) present.

Each system has been rigorously tested and reliability demonstrated by the AOAC Performance Tested Method certification, thus providing you with confidence in our systems and results for evaluating the effectiveness of your cleaning programme.



Mycotoxins

Neogen's rapid tests for the detection of mycotoxins are available in multiple formats. Our **Reveal® Q+** tests are simple, easy-to-use lateral flow tests, providing quantitative results in minutes. Perfect for use onsite, the tests have unmatched accuracy and reproducibility allowing for quick and convenient testing. Our innovative and environmentally-friendly water-based extraction process is available for a range of mycotoxins with our lateral flow and ELISA tests.



Food Quality and Nutritional Analysis

For over 30 years, **Neogen's Megazyme®** range has offered solutions to the food quality market with a range of high-quality carbohydrate and enzyme-substrate products. Our extensive range of diagnostic test kits are readily accessible for the measurement of key analytes including dietary fiber, sugars, acids, alcohols, enzymes and many more and have been created to serve industries such as commercial labs, food and beverage, enzyme manufacturing, dairy and infant formula, wine, brewing, malting, animal and pet food and biofuels thereby setting new standards for our products and methods in terms of accuracy, reliability and convenience for customers around the world.



We also offer solutions for:

- Traditional Microbiology
- Rapid Microbiology
- Sample Collection