



Solutions for Mycotoxins



We offer a range of mycotoxin testing solutions and formats to suit your needs.

MAX Aqueous Extraction

A selection of our lateral flow and ELISA formats use an innovative water-based extraction process.

Typically the use of chemicals, such as ethanol and methanol, are required during extraction. With our environmentally friendly mycotoxin aqueous extraction (MAX) method the need for these hazardous materials is eliminated from your workflow - all you need to add is water.



Lateral Flow Tests

For high or low throughput users, looking for qualitative or quantitative results, we have a solution for you. We offer qualitative screening tests for fast visual results perfect for onsite detection of Aflatoxin and Aflatoxin M₁. Our quantitative tests, detailed below, provide known levels for a wide range of toxins. Find out more from Neogen on which solution suits you best depending on matrix.

Neogen's 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.

Why Use Our Reveal Q+ Tests?

- ✓ **Quantitative** - Knowing the accurate level of toxins present allows you to evaluate the safety of your raw materials and compliance with regulatory levels
- ✓ **Provides Fast, Actionable Results** - From processing through to production and end product testing, instant results can ensure the product is fit for purpose and avoid any unnecessary delays
- ✓ **Detects Low Levels** – Have confidence that our tests can detect even low toxin levels, especially important for those products with lower threshold legislation
- ✓ **Easy To Use** - Suitable for all skills levels with only minimal training and equipment required

Our Reveal Q+ MAX aqueous extraction tests are available for:

	Testing Time	Range of Detection*		Testing Time	Range of Detection*
Reveal Q+ MAX Aflatoxin	6 min	3-300 ppb	Reveal Q+ MAX T-2/HT-2	5 min	50-3000 ppb
Reveal Q+ MAX DON	3 min	300-30000 ppb	Reveal Q+ MAX Zearalenone	5 min	25-1500 ppb
Reveal Q+ MAX Ochratoxin	5 min	2-100 ppb	Reveal Q+ MAX Ergot Alkaloids	8 min	50-5000 ppb

Results from our Reveal Q+ MAX tests are interpreted using our innovative Raptor[®] platform available in two formats to suit your needs. Whether you are looking for scalability or portability, our two reader options are automated to reduce hands-on time. Our compact desktop Raptor unit can process multiple tests at the same time to increase your productivity whilst our handheld Solo unit is a battery operated reader for testing on-the-go.

	Testing Time	Range of Detection*
Reveal Q+ Fumonisin	6 min	300-6000 ppb

*Range of detection with dilutions

We also offer our standard Reveal Q+ lateral flow test for the detection of Fumonisin, as well as Aflatoxin, DON, Ochratoxin, T-2/HT-2 toxin and Zearalenone.

Procedure Snapshot

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

Note: Please read kit instructions completely before performing test.

Lateral Flow

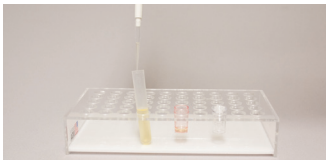
Reveal Q+ MAX Test Procedure



1. Add contents of a MAX 1 packet to 10g of sample



2. Add 50mL distilled or deionised water and shake vigorously, once settled filter and collect filtrate



3. Mix sample diluent with sample extract



4. Insert test strip into the Raptor cartridge and insert into reader



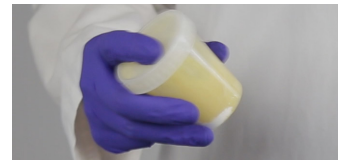
5. Add prepared sample to the Raptor cartridge, the reader will start automatically and show results.

ELISA

Veratox MAX Test Procedure



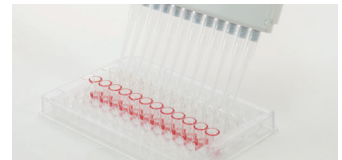
1. Add contents of a MAX 2 packet to 10g of sample



2. Add 50mL distilled or deionised water and shake vigorously, once settled filter and collect filtrate



3. Add conjugate, then controls and samples to red marked wells and mix



4. Transfer this solution to the antibody wells, incubate according to kit insert at room temperature



5. Dump the liquid from the antibody wells and wash wells thoroughly with deionised water, repeat wash step five times and tap out excess water



6. Add substrate to the antibody wells, incubate according to kit insert at room temperature



7. Add red stop reagent to the antibody wells



8. Read results using a microwell reader

External Laboratory Services

If you are looking for an external laboratory to carry out your full testing requirements, or simply looking for a partner to verify your results, we are here to help.

We offer a range of mycotoxin testing services for a variety of food and feed matrices.

With flexible turnaround times and confidential results you can trust, why not find out how Neogen can support your mycotoxin testing?

**Have
Confidence
In Your Results
With Our Lab
Services**

ELISA Tests

Neogen's Veratox[®] quantitative ELISA microwell assays are perfect for those with laboratory set ups from food manufacturers to commercial and government laboratories. These tests provide accurate, low level results.

Why Use Our ELISA Tests?

- ✓ **Quantitative** – Get an exact reading level of any toxins present within your samples to determine the safety and regulatory compliance of your products
- ✓ **Batch Testing** – Our ELISAs allow you to test up to 19 samples at a time against test controls
- ✓ **Precise Results** – ELISA testing produces comparable results to analytical methods, such as HPLC
- ✓ **Efficient Workflow** - With only minimal training required, the simple process means no wasted time or resource within your lab



Our Veratox ELISA test kits are available for: Aflatoxin, DON, Ochratoxin, Zearalenone, T-2/ HT-2 toxin and Fumonisin.

We also offer additional tests including our high sensitivity (HS) options. Veratox MAX for Total Aflatoxin, Total Aflatoxin HS and Zearalenone are the first microwell tests available utilising an aqueous extraction.

Aflatoxin M₁

For dairy products such as milk, milk powder, butter or cheese, we also offer a rapid ELISA test for the detection of Aflatoxin M₁ at 5-100ppt in just 45 minutes. Contact us today to find out more.

Immunoaffinity Columns

For those who are testing highly pigmented matrices such as spices, red wine or coffee, we also offer a range of NeoColumn[™] immunoaffinity columns for the cleaning and concentration of toxins prior to analysis with HPLC, fluorometry or ELISA methods.

- ✓ **High recovery levels** – Our recovery levels exceed the EU performance criteria for trusted and reliable results
- ✓ **Reproducible** - An automated production process reduces column-to-column variability for consistent and reproducible testing
- ✓ **Validated matrices** – Our internal validations give you confidence that Neocolumn can recover mycotoxins from a wide range of challenging matrices



Available for Aflatoxin, Zearalenone, T-2 / HT-2 toxin, DON and Ochratoxin.

Your Trusted Partner

With Neogen, it's not just about our products; our experienced R&D, Technical Support and Customer Service teams are on hand to offer guidance and support every step of the way. At Neogen we believe in partnerships, that's why we offer a range of training and support tools to help you not only learn about our products but build knowledge and skills within your own team.

We have over 30 years experience developing innovative testing solutions and services for the analysis of mycotoxins for a range of matrices including cereals, dried fruit and nuts, spices and animal feed.

We offer a comprehensive range of methods to detect:

- Aflatoxin
- Ochratoxin
- Ergot Alkaloids
- Deoxynivalenol (DON)
- T-2/HT-2 toxin
- Fumonisin
- Zearalenone

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.

Mycotoxin Workshops

Throughout the year we host free-to-attend, localised workshop events. Here you can meet with our experts to test and calibrate equipment, ensure all software is up to date and receive refresher training for you or your team.

Proficiency Testing

We offer regular mycotoxin proficiency testing to help support compliance with customer demands, certifications and regulatory requirements. As part of a ring trial we can send you spiked samples to blind test and report results on. We will assess your results against the known sample levels and produce a confidential report to validate the efficacy of your test procedure and results.

Mycotoxin Reference Material

When looking to validate your in-house results, we can also provide naturally contaminated mycotoxin reference material (MRM) for testing. The samples will have varying levels of toxin present and can be used as part of training or internal certification to confidently evaluate your sampling, extraction and testing performance.



Complete Food Safety Solutions

Neogen offers a range of complementary product lines to be used alongside our solutions for mycotoxins as part of a comprehensive food safety testing plan, including:

Allergens

From rapid onsite qualitative tests to quantitative ELISAs, we've got a solution for you. Our Reveal® 3-D lateral flow tests are uniquely designed with three lines of detection and can be used onsite to screen for low levels of allergens in rinses, environmental swabs and validated matrices, with results in 10 minutes or less. Our latest developments include a rapid test for the detection of any one or a combination of six tree nuts, plus assays for coconut.



We also offer ISO 17025 accredited allergen laboratory services providing analysis of a wide variety of food matrices, CIP rinse waters and environmental swabs. Full details of our accreditation can be found online.

Seafood and Shellfish

Neogen is the only commercial company to offer both onsite testing for marine biotoxins and external laboratory services to detect ASP, DSP, PSP toxins and norovirus. We also have a range of histamine testing solutions, available in three easy to use formats to suit your needs, each with a simple water extraction. In addition, we have a rapid semi-quantitative test for detecting sulfites in shrimp.



Hygiene Monitoring

Our AccuPoint® Advanced Hygiene Monitoring System validates the effectiveness of your hygiene programme by detecting food residues and microorganisms present on surfaces and in liquids by measuring the amount of adenosine triphosphate (ATP) present.



AccuPoint Advanced is the first hygiene monitoring system that has been rigorously tested and validated by AOAC as an AOAC Performance™ Tested Method. Our three colour-coded samplers with liquid-stable chemistry are unrivalled in recovery of ATP from surfaces and rinse waters.

We also offer solutions for:

- Traditional Microbiology
- Food Genomics
- Rapid Microbiology
- Species Identification

Why not ask how we can improve on your current testing today?



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