

## Product Overview

- Food Safety
- Toxicology
- Life Science
- Genomics





# Neogen®

Founded in 1982, Neogen Corporation (NASDAQ: NEOG) has grown to more than 1,000 employees in multiple U.S. and international locations and a worldwide presence.

Neogen develops, manufactures and markets a diverse line of products dedicated to food and animal safety.



Situated within 7,000 m<sup>2</sup> of Scottish countryside in Auchincruive, Ayr the European headquarters of Neogen was established in 1998. Through strategic acquisitions the Neogen Europe group has expanded to include two additional sites, Neogen Heywood and Neogen Rochdale, both located in Greater Manchester, UK. Today, Neogen employs over 200 staff providing on-site diagnostic test kits and laboratory services throughout Europe, the Middle East and Africa.

With over 30 years industry experience and a commitment to ongoing research and development, when it comes to food safety testing, trust Neogen to deliver for you.

With on-site training, on-going technical support and superior customer service we're here to help you every step of the way. We offer a large range of comprehensive and innovative on-site testing solutions.

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## Mycotoxins

Neogen offer the most comprehensive range of on-site and external laboratory services for mycotoxin analysis to detect aflatoxin, deoxynivalenol (DON), fumonisin, ochratoxin, T-2 / HT-2 toxin and zearalenone. Our test kits are available in a variety of formats from rapid screening to quantitative ELISA's, provide results in minutes and require only a minimal amount of training and equipment.



## Reveal® Q+ and Reveal Q+ MAX®

Reveal Q+ for Mycotoxins are easy-to-use, rapid, fully quantitative lateral flow tests that provide unparalleled accuracy in only 9 minutes or less. Reveal Q+ are suitable for room temperature incubation and storage, eliminating the need for incubators or refrigeration space. Reveal Q+ MAX tests use environmentally friendly, common water-based extractions to deliver simple quantitative results, saving time and resource.



## Veratox®

Neogen's Veratox for Mycotoxins are fully quantitative microwell tests that compare up to 19 samples at a time against test controls. Through the use of a microwell reader, the tests provide accurate sample results in parts per million or parts per billion.



## NeoColumn™

Neogen's NeoColumn for aflatoxin, DON, ochratoxin, T-2 / HT-2 and zearalenone are immunoaffinity columns that efficiently clean and concentrate the toxins prior to analysis by HPLC, fluorometric reader, or Neogen's Veratox test kits.





## Traditional and Rapid Microbiology

Neogen offers a wide variety of testing solutions to fit into any microbiology workflow for the detection of foodborne pathogens or spoilage organisms. Our multiple test formats include rapid lateral flow screening tests, automated technology, convenience based methods, culture media and molecular-based DNA detection. Neogen's alternative methods and automated test systems can reduce testing times to as little as 1 hour, compared to 72 hours for traditional methods.



## Soleris®

Based on automated optical technology that combines simple methodology and classic microbiology, Soleris provides reproducible, rapid and accurate detection and enumeration of a variety of micro organisms e.g. TVC, Coliforms and Yeast and Moulds across a spectrum of sample types – including food, dairy, beverages and pet food. The Soleris system comprises an incubator, ready-to-use vials and system software. A maximum of 512 samples can be tested simultaneously with no batching required using four instruments connected to a single PC.



## ANSR®

Unlike other molecular technologies, ANSR (Amplified Nucleic Single-temperature Reaction) utilises patented, unique amplification reaction technology for in vitro DNA and RNA amplification at a constant temperature. ANSR provides genetic level detection of low level specified targets for *Salmonella*, *Listeria* spp., *Listeria monocytogenes* and *E.coli* 0157:H7 in as little as 10 minutes following enrichment. ANSR's enrichment and assay result in minimal matrix effects compared to conventional methods, in both food matrices and environmental samples.

ANSR *Listeria* Right Now™ is an enrichment free environmental tool for *Listeria* detection providing actionable results in less than 60 minutes.



## Reveal® 2.0

Neogen's Reveal test systems for *Salmonella*, *Listeria* spp. and *E.coli* 0157:H7 have everything to complete a pathogen screen, including the enrichment medium. Reveal's lateral flow device combines an immunoassay with chromatography for a rapid and accurate one-step result. Results are available 15 minutes after enrichment. The tests' unique antibodies ensure sensitivity and specificity. Built-in visual control lines provide definitive interpretations.



# Neogen Culture Media

Neogen specialises in the development and manufacture of microbiological culture media. As microbiology testing standards are routinely updated and advances in technology allow for more efficient protocols, we continue to develop and improve the Neogen Culture Media product range to ensure you have the most up to date and relevant product formulations to suit your methods.

Neogen Culture Media supports compliance with global reference methods including ISO, BAM and MLG, with a promise of quality at every step. Our media is manufactured at dual sites located in the UK and USA, allowing us to deliver the same high standards, no matter where in the world you may be. Alongside our core range of over 270 Dehydrated Culture Media (DCM) products, we also offer convenience testing formats to support workflows and streamline efficiencies across a variety of industries.

Neogen Culture Media's product range includes:

**Harlequin®** Chromogenic Media

**µPREP®** Ready-to-Reconstitute Media Bags

**Captivate™** Immunomagnetic Separation (IMS) Beads

**Pre-Poured Media Plates**

**EZ Prep** Pre-weighed Media Pouches



**Coming soon: Ready-to-use Liquid Media in tubes and bags for your convenience**

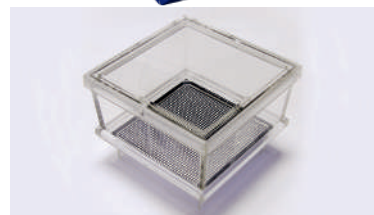
Our Neogen Heywood site is certified in accordance to ISO 9001:2015 & ISO 13485:2003 for the implementation of a Quality Management system that controls the design, manufacture and supply of microbiological culture media, antibiotic supplements and in-vitro diagnostic products. Our products for the clinical market are supplied in compliance with the European IVD directive and carry the CE mark. Neogen Heywood's QC laboratory holds accreditation to ISO 17025:2005 by UKAS, and complies ISO 11133:14 +A1 2018 and the European Pharmacopoeia 9th edition testing methodology where appropriate.

## Colitag™

Colitag is a selective and differential medium for determining the presence or absence of total coliforms and *E. coli* in drinking water, and surface and source water samples.

## Membrane Filtration

Neogen's ISO-GRID® and NEO-GRID® membrane filtration systems utilize hydrophobic grid membrane filter technology to detect and quantify target organisms.



## Allergens

Neogen's line of food allergen kits offer rapid quantitative and screening tests for a range of allergens including peanut, egg, milk, almond, gliadin (gluten), soy, mustard, walnut, sesame, casein, crustacea, tree nut,  $\beta$ -Lactoglobulin and hazelnut. In addition to on-site testing, external laboratory services are available for the analysis of a wide variety of food matrices, CIP rinse waters and environmental swabs using both ELISA and PCR methods.



## Reveal® 3-D and Reveal®

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, providing results in 10 minutes or less.

Reveal 3-D tests feature a unique overload line designed to prevent saturation and alert the user of a high positive result. Reveal for Multi-Treenut is a unique and innovative lateral flow test for rapid allergen detection of six tree nuts with one test.



## Veratox®

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 with 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.



## BioKits®

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.





## Hygiene Monitoring

Neogen provides a range of products to detect the amount of food residue and other organic matter such as yeast and mould or bacteria that can remain after cleaning. The tests can be incorporated into a organisations cleaning program to monitor its effectiveness. Solutions include AccuPoint Advanced and AccuPoint Advanced HC ATP monitoring systems. These fast, accurate and economical systems help you to track and report on the hygiene levels within your facility and meet HACCP requirements.



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## AccuPoint® Advanced

AccuPoint® Advanced Hygiene Monitoring System measures the ATP collected from food contact surfaces or rinse water samples as an indication of the cleanliness of the surface or purity of the rinse water. AccuPoint Advanced works by measuring the light created when ATP reacts with liquid stable enzyme chemical reagents in the system's unique sampling devices. The higher the levels of food residue and microorganisms in a surface or rinse water sample, the more ATP, and the more light produced.



AccuPoint Access Sampler

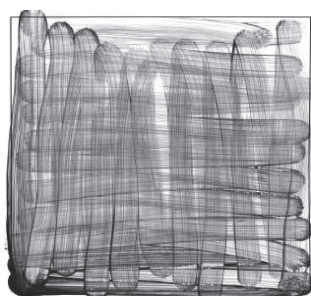


AccuPoint Surface Sampler

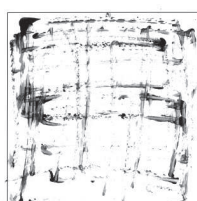


AccuPoint Liquid Sampler

## Sampler Precision



AccuPoint  
Advanced ATP  
Surface sampler  
pattern



Traditional ATP  
Surface swab  
pattern

## AccuPoint® Advanced HC

Improper cleaning of health care facilities can result in increased incidents of hospital acquired infections including *Clostridium difficile* (C. diff) and Methicillin resistant *Staphylococcus aureus* (MRSA). AccuPoint HC results can be stored along with the area, room or ward number, test site, house keeper or domestic, time and date allowing for real time trend analysis and tracking.

AccuPoint Advanced comes with optional RFID technology and includes the latest smart Data Manager software that gives a clear analysis of results and trends exclusive to AccuPoint Advanced.



## Seafood and Shellfish

Neogen is the only commercial company to offer both on-site testing for marine biotoxins and external laboratory services to detect ASP, DSP and PSP toxins. Neogen has a range of testing solutions for the detection of histamine in three easy to use formats to suit different testing requirements each with a simple water extraction. In addition, we can offer a rapid semi-quantitative test for detecting sulfites in shrimp.



## Reveal® 2.0 for Marine Biotoxins

Neogen's Reveal 2.0 for ASP (Amnesic Shellfish Poisoning) detects ASP-causing toxins at a level of 20 parts per million (ppm), Reveal 2.0 for DSP (Diarrhetic Shellfish Poisoning) detects DSP-causing toxins at 160 parts per billion (ppb), Reveal 2.0 for PSP (Paralytic Shellfish Poisoning) detects PSP-causing toxins at 800 ppb STX equivalents or greater. All are compatible with the European Union Commission and U.S. Food and Drug Administration (FDA) permitted levels. Results can be obtained within 15 minutes or less.



## Reveal® for Histamine

Reveal for Histamine is a single-step lateral flow assay for the visual screening of histamine in fish samples using a simple water extraction. The test format is easy to use and requires minimal hands on time with results within 5 minutes.



## Alert® for Histamine

Alert for Histamine is an ELISA-based screening test that utilises a quick water extraction. Up to six samples can be tested at one time. Results can be visually interpreted following a 20 minutes incubation.





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## Veratox® for Histamine

Veratox for Histamine is an ELISA test allowing the user to obtain exact concentrations in parts per million of histamine, traditionally found in species of fish such as tuna, herring and mackerel.



## Alert® for Sulfites

EU and FDA regulations state that seafood containing sulfite residues of 10 parts per million (ppm) or more must be labelled as such. Alert for Sulfites is a very simple rapid semi-quantitative test for detecting sulfites in shrimp providing results in less than two minutes.



## Species Identification

Neogen's range of test kits and external laboratory services for species content help to prevent substandard or culturally unacceptable substitutions from reaching consumers. Our tests can detect as little as 0.5% of target meat in either raw or cooked meat products. Speciation tests are available in several formats, including lateral flow, microwell and PCR.



## Reveal®

Reveal for Pork is a qualitative lateral flow screening test used to detect raw pork in meat and environmental samples. The test can detect as little as 0.5% raw pork in as little as 5 minutes after extraction.



## BioKits®

BioKits for species identification are sandwich-based ELISA assays which provide sensitive and specific qualitative detection of a range of animal species for raw and cooked food products, including: cow/beef, pig/pork, poultry and sheep.



## Adulterations

Reveal lateral flow screening tests for adulteration. Ruminant MBM can detect as little as 2% ruminant material in non-ruminant animal meal. Reveal for Ruminant in Feed can detect as little as 1% ruminant by-products in feed and feed supplements.



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## Genetically Modified Organisms

Neogen's BioKits DNA for genetically modified organism tests enable sample extraction using proprietary magnetic bead technology, amplification by PCR multiplex reactions and detection by agarose gel electrophoresis. Additionally Neogen can provide an immunochromatographic lateral flow assay for the qualitative analysis of CP4 in soybeans and corn. The test can detect as little as 1 CP4 enhanced soybean among 1,000 beans (0.1%), and 1 NK603 Roundup Ready kernel of corn among 800 kernels (0.125%).



## Contract Laboratory Services

A variety of techniques are available to suit testing requirements and timescales, including qualitative and quantitative PCR analysis, ELISA, HPLC and LCMS. Our continual investment in new technologies ensures our range of UKAS accredited testing addresses existing and emerging requirements, for a full list of our accredited tests please refer to our schedule available at [foodsafety.neogen.com/uk](http://foodsafety.neogen.com/uk)



**Neogen provides contract laboratory services for:**

- Food Allergens
- Shellfish Toxins
- Speciation
- Mycotoxins
- Norovirus
- GMOs

All of our food and feed testing services are carried out by highly trained scientific analysts using sophisticated state-of-the-art equipment. Ordering your tests and getting samples to Neogen is a quick and easy process. All results are confidential and services are subject to extensive quality control and regular quality assurance.



## Drug Residues

Neogen offers screening and quantitative drug residue test kits to detect Beta Agonist, Clenbuterol, Ractopamine, Sulfa Drugs and Tylosin residues. Neogen's drug residue tests can detect the target residue in multiple matrices, such as feed, tissue and urine.



## Toxicology and Life Science Solutions

Neogen has over 30 years experience developing and manufacturing a comprehensive range of ELISA test kits for forensic drug detection. Our tests detect over 300 drugs and their metabolites in a variety of matrices and are used across multiple industries including workplace drug testing, criminal justice, academic research and animal sport racing. Neogen's Life Science division develops and manufactures ultra-sensitive, quick and dependable test kits alongside an expanding range of substrates and reagents for life science research.



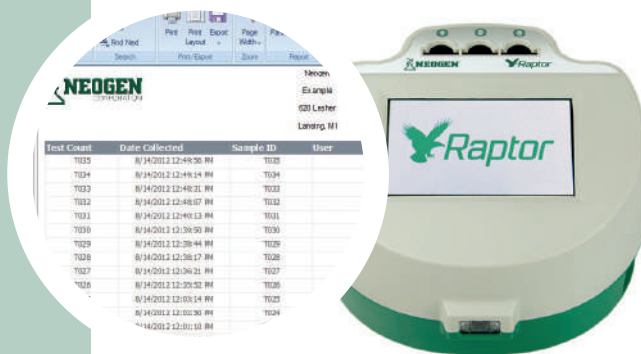
## Genomic Solutions

Neogen's GeneSeek subsidiary has been providing a comprehensive range of veterinary and agrigenomic diagnostic solutions for more than 17 years. Since being acquired by Neogen in 2010, GeneSeek has tripled in size and continued to be a global leader providing SNP and STR testing to some of the world's largest animal breed and health companies. In 2012, Neogen acquired the assets of Igenity from Merial. In October 2015, GeneSeeks first dedicated European laboratory opened within its European headquarters in Ayrshire, Scotland.



## Equipment and Consumables

Neogen offer a complete range of laboratory equipment, consumables and data manager software. Please discuss your individual requirements with your technical sales representative and they will be happy to assist.



## LabLive



We offer a variety of service programmes designed to optimise your results when using Neogen products. LabLive is a unique lab-to-lab experience connecting our technical support experts remotely to your lab.



## Training and Technical Service

We will help you select the right testing solution for your needs and provide your team with comprehensive training and support on the use of Neogen kits and equipment. Depending on the complexity of your requirements, number of employees to train or their current expertise we are able to create a training package customised to your needs. We have an on-site team of highly skilled technicians to help in providing you with the most efficient, world class technical support. For unique commodities, we have an expert team dedicated to validating new matrices on our rapid methods.



\*Please contact your technical sales representative for further details on Neogen product approvals.



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