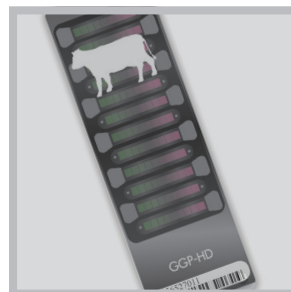




Product Overview

- 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 m² of Scottish countryside in Auchincruive, Ayr the European headquarters of Neogen was established in 1998 and today employs around 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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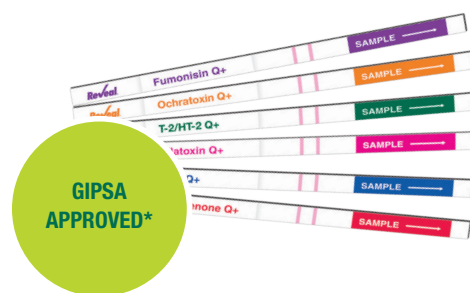
Mycotoxins

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, water-based extractions to deliver simple quantitative results, the common extraction for use with any MAX test also saves 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.



Agri-Screen®

Neogen's Agri-Screen for Mycotoxins are screening microwell tests that compare up to 5 samples at a time against a known level of toxin. The tests provide visible results that clearly show whether a sample contains more or less of a toxin than the control provided, within 15 minutes or less.



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, dehydrated culture media and molecular-based DNA detection. Neogen's automated test systems can reduce testing times to as little as 8 hours, compared to 72 hours for traditional methods.



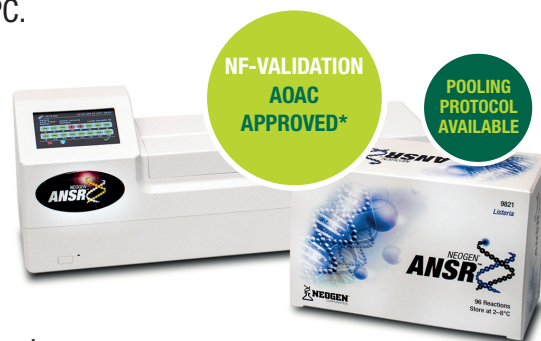
Soleris®

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 patent-pending, unique amplification reaction technology for in vitro DNA amplification at a constant temperature. ANSR provides genetic level detection of low level specified targets for *Salmonella*, *Listeria* spp., *Listeria monocytogenes* and *E.coli* O157: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.



Reveal® 2.0

Neogen's Reveal test systems for *Salmonella*, *Listeria* spp. and *E.coli* O157: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.



Colitag™

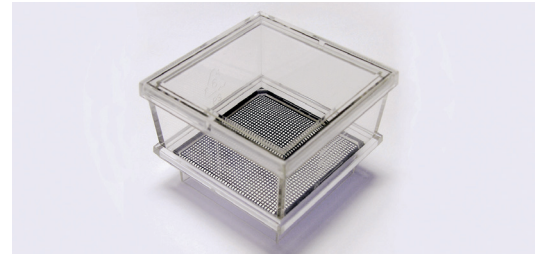
Colitag is a selective and differential medium for determining the presence or absence of total coliforms and *E. coli* in drinking water, and surface and source water samples.

Membrane Filtration

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

Acumedia®

Acumedia has been recognised since 1978 as a premier manufacturer of high-quality dehydrated culture media for industrial, pharmaceutical, biotech, food safety and life science applications. Acumedia produces more than 240 catalogue formulations and well over 200 custom formulations to meet specific customer requirements.



Lab M was established in 1971 in Manchester, UK and specialises in microbiological culture media. Lab M became a Neogen Company in August 2015. Lab M has an international reputation for the quality of its dehydrated culture media, which is available in various formats to support workflows and streamline efficiencies across different microbiology laboratories.



Lab M's products include:

Harlequin™ chromogenic media

µPrep™ ready-to-reconstitute bagged dehydrated media

Pinnacle™ ready-to-use plated medium

Captivate™ antibody coated paramagnetic particles for immunomagnetic separation (IMS)

NutriTone™ peptones range

OrganoTone™ media constituents

Lab M is certified in accordance with ISO 9001:2008 & ISO 13485:2003 for the design, manufacture and supply of microbiological culture media, antibiotic supplements and diagnostic products. Lab M's products for the clinical market are supplied in compliance with the European IVD directive and carry the CE mark.

Lab M's QC laboratory holds BS EN ISO 17025 accreditation by UKAS for the physical and microbiological performance testing of ready-to-use **Pinnacle™** media range.

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, β -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.



Alert[®]

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 samples for the presence of a target food allergen within 30 minutes following extraction. Each test kit contains all the reagents needed and requires minimal training and additional equipment.



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.



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

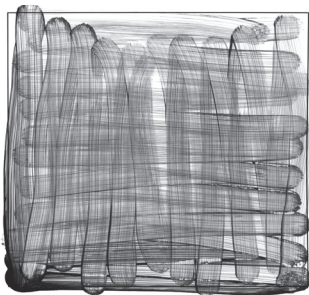


AccuPoint Surface Sampler

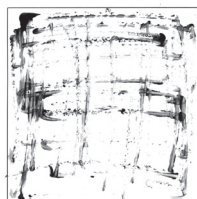


AccuPoint Liquid Sampler

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 a screening test that utilises a quick water extraction. Visual interpretation of the results can be made in less than 20 minutes. This test is designed to test one to six samples at one time.



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Veratox® for Histamine

Veratox for Histamine allows the tester 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 1% of target meat in either raw or cooked meat products. Speciation tests are available in several formats, including lateral flow, microwell and PCR.



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.



Reveal®

Reveal for Ruminant MBM is a lateral flow assay used to screen for ruminant material in non-ruminant animal meal at as little as 2%. Reveal for Ruminant in Feed is a lateral flow used to screen for ruminant by-products in feed and feed supplements at as little as 1%.

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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 www.neogeneurope.com.



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.



Training and Technical Services

We will ensure that you select the correct testing solution for your needs and provide your team with comprehensive training and support on the usage 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 compared to reference methods.



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



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