

## Supplement testing and certification

LGC has a long history in helping reputable supplement companies provide products that athletes can really trust.

Sports supplements can help athletes to perform at the highest level but it is vital that athletes choose products that have been made, and tested, to the highest quality standards.

Research has shown that some supplements can suffer from inadvertent contamination with trace amounts of substances that are banned for use in sport. Significant commercial benefits can be realised by having finished products, raw materials or production facilities assessed and tested to ensure that each stage of the manufacturing process complies with the stringent requirements for elite sport. Responsibility for the purity of a product rests solely with the manufacturer - even trace levels of contamination can have significant consequences. This requires a sensitivity of testing way beyond routine quality control systems.

Currently over 220 sports supplement manufacturers in over 20 countries rely on LGC for accurate, dependable results.

When you partner with LGC you get the security of ISO 17025 accreditation, WADA experience and expert support for legal, marketing and media claims. The quality of our results can withstand the highest level of scrutiny anywhere in the world.



### Quality assurance - trusted results

All of our testing is carried out to the ISO 17025 standard - the key standard for any analytical laboratory (accreditation for supplement analysis granted in 2003 and held continuously since that time). This ensures that if contamination exists above the defined limits of detection it will be identified and called „positive“. Laboratories that do not use ISO 17025 accredited methods for supplement testing may call a „negative“ result simply because they are unable to find the contamination - not because it isn't there.

Chain of custody is the cornerstone of LGC's supplement testing services. All samples are tracked through the laboratory with a state of the art LIMS (Laboratory Information Management System) – providing absolute traceability across the analytical process.

As the world's largest commercial provider of sports supplement testing services, LGC analyses more than 7000 supplement samples each year using a combination of gas and liquid chromatography, combined with mass spectrometry to achieve exceptional detection limits that are measured in parts per billion.

All methods used are accredited to ISO 17025 and cover all formulation types:

- powders
- capsules/ tablets
- gels
- bars
- liquids
- oils
- topical gels.

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## Sports nutrition testing

pharmaceutical development • regulatory submission • cGMP • analytical quality • chemical measurement • bioanalysis • standards



standards • bioanalysis • chemical measurement • bioanalysis • standards



## Introducing LGC sport science

Elite sport is about the finest of margins. When it comes to nutritional supplements LGC understands there is no margin for error.

LGC is a recognised world leader in the provision of sports anti-doping testing, including the testing of nutritional supplements for prohibited substances. With well over 300 scientific publications on anti-doping in sport and over 450 man years of scientific research, LGC's expert staff provide trusted scientific results for both human and animal sports.

LGC's dedication to analytical science and athletic performance allows us to assist athletes in various fields of health sciences such as Supplement Quality Assurance, Athlete Fitness Testing, and Nutritional Biomarker Analysis. With our cutting edge science we have developed a true partnership with athletes, sports authorities and sports nutrition companies alike, assuring our reputation as being a TRUSTED partner in sport.

LGC's globally recognised supplements testing service was created by HFL Sports Science, the former WADA accredited sports anti-doping laboratory acquired by the LGC Group in 2010. HFL's worldwide reputation was based on more than 50 years of doping control experience. LGC is also a market leader in forensic analysis, diagnostic testing and the provision of reference standards.



## LGC's testing programmes for the analysis of supplements

Informed-Sport and Informed-Choice are certification programmes for sports supplements. They offer a complete quality assurance system for sports nutrition products, as well as suppliers to the sports nutrition industry and supplement manufacturing facilities.

The programmes certify that all nutritional supplements and/or ingredients and/or sites that use

the Informed-Sport or Informed-Choice logos can be trusted by athletes.

Products and sites that have been through this rigorous certification process are listed on the websites [www.informed-sport.com](http://www.informed-sport.com) and [www.informed-choice.org](http://www.informed-choice.org).



- Product testing using ISO 17025 accredited analytical methods
- In-depth audit of the manufacturing quality controls, as well as the product label
- Pre-registration testing of products
- Post-registration batch testing of products, prior to release for sale
- Logo use and Web Directory for communication and education



- Product testing using ISO 17025 accredited analytical methods
- In-depth audit of the manufacturing quality controls, as well as the product label
- Pre-registration testing of products
- Regular post-registration testing of products
- Logo use and Web Directory for communication and education

### Customised testing

- Bespoke quality control testing of products and ingredients
- Testing using ISO 17025 accredited analytical methods
- Specific batches of products tested on an "as needed" basis

## Case Study: How testing can help minimise cross contamination with banned substances

A sports supplement company needed a range of products to be tested. Analysis showed contamination rates in excess of 30%. Review of the manufacturing processes (provided by a third-party manufacturer) indicated inadequate QC procedures in the control of raw materials and the management of cross contamination within the manufacturing process.

The third-party manufacturer had been using a range of QC testing technologies drawn from the food industry. However, these were inadequate for the detection of contaminants relevant to sport. The supplement company took remedial actions, including changing the third-party manufacturer and carrying out regular testing of products. Contamination findings fell to less than 1%, and this was maintained while the company increased its product line.

## Relationships with sports regulators

Analysis is of no value unless it meets the exacting requirements of the various regulating bodies. As a sports doping control laboratory, LGC works directly with National Anti-Doping Organisations and other sports authorities and governing bodies. As a result LGC is able to represent the views of partners and assist in the shaping of future regulation.

LGC's Informed-Sport and Informed-Choice programmes have the support of many sports authorities around the world, and are widely regarded as offering the best practice standard for supplement testing and certification. Although no longer a WADA accredited laboratory (WADA prohibits any of its accredited laboratories from providing commercial testing services to supplement companies), LGC remains part of this community and has undertaken WADA-funded research into drug detection in sport.

The experienced employees at LGC also carry out regulatory testing at high profile sporting events such as the London 2012 Olympic, Paralympic Games, the more recently the Sochi Winter Olympics helping to ensure the integrity of sport for global athletes.

LGC has a dedicated, committed team of expert scientists, focused entirely on the analysis of supplement/ ingredient/ swab samples. We develop close working relationships with our customers, providing free educational support to help in their understanding of supplements and contamination issues, as well as understanding the analytical techniques used and results interpretation.

As a sports doping controlled laboratory, LGC is used to providing scientific data that is designed to withstand legal scrutiny. As such LGC is able to support its Partners in legal situations. For this reason, LGC has become well known as the laboratory you can TRUST.



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