

LGC

Food Authenticity Centre of Expertise –
General Proficiency



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Background



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LGC, founded in 1842, is an international organisation providing excellence in investigative, diagnostic and measurement science, and remains at the forefront of testing approaches, techniques, instrumentation and policy associated with food authenticity.

LGC is committed to providing open access to best measurement practice guidance for food authenticity testing. With experience in the food, biotechnology, pharmaceuticals, security and sports sectors, LGC brings wide contextual salience to the concept of authenticity centres of expertise.

Through LGC's national roles (Government Chemist, UK National Measurement Laboratory for chemical and bio-measurement, and a National Reference Laboratory in many areas) we bring 175 years of demonstrable analytical capability and expertise to provide measurement solutions across food authenticity and adulteration testing scenarios.

Working together - LGC collaborates with more than 100 organisations annually for measurement-related work.

Areas of expertise



- In-depth practical knowledge in authenticity testing across genomics, mass spectrometry, spectroscopy, microscopy, proteomics and other techniques
- Offers [training](#) in statistics, measurement uncertainty, method validation & [proficiency testing](#) for analytical laboratories
- Animal and plant speciation
- Digital PCR-based quantification of DNA accredited to ISO17025
- Next Generation Sequencing to determine species identity
- Expertise in rapid / non-targeted / point of use methods

Authenticity challenges



- LGC advised UK government throughout the 2013 horsemeat issue, providing input towards the FSA four-point plan on meat species carry over, methods for horsemeat and represented the UK government at national and EU expert meetings
- LGC helped resolve cases involving allergens in spices, which caused global recalls in 2015, by developing pioneering methods for the detection of almond/mahaleb in spices
- LGC is also the coordinator of the [Food Authenticity Network](#).

Information available



[E-Seminars from LGC:](#)

- Overview of Sanger DNA sequencing & interpretation of data
- Guidance and recommendations for using dPCR for food testing

[Videos from LGC:](#)

- DNA extraction to support food labelling enforcement seminar
- Proficiency testing at LGC

[News from LGC:](#)

- ISO17025 accreditation for digital PCR-based quantification of DNA
- New DNA measurement laboratory to be hosted at LGC as the National Measurement Laboratory for chemical and bio-measurement