

# DNA Authenticity Testing of Premium Products and Food

Are you really sure of what you are buying and selling?

Premium products achieve high market prices and consequently often attract fraud. Mixing or complete substitution with lower quality products is common to increase profit, regardless of the damage to economy and consumers. Even experts can be helpless when it comes down to detect adulteration.

DNA analysis can be a powerful and sometimes the only reliable tool to prove and certify the genuineness of a product. Our tests allow both suppliers and consumers to have more confidence in genuine product labelling.



## Unique Expertise

Eurofins Medigenomix has a unique long-term expertise in combining DNA Forensics knowledge with DNA based product testing. We have the capacity and portfolio for efficient high quality testing as well as for the development of tricky

new test methods even for large numbers of samples.

## Product Range

From production to retailing, DNA testing can support your market position and QM. We are able to prove and confirm the quality and identity of the raw material and its different production stages up to the components of the final product. The following examples show the broad testing range (some of the tests are in the validation phase):

### Food and Food products

Basmati Rice • Aberdeen Angus Beef • Coffee varieties • Bovine/porcine gelatine source • Fish & shrimp species determination • Meat and meat products

### Dietary supplements and food product ingredients

Gelling agents such as Tara powder (E417), Carob powder (E410) or Guar gum (E412) in yoghurt, ketchup, pudding etc.

### Medical product ingredients

Plant and animal ingredients • Ginseng variants • Chondroitine sulphate animal source

### Non-Food Products

Cashmere, Sheep wool, Camel hair & Yak hair in raw material, yarn and garment



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**ISO 17025:2005 accredited** to carry out testing in the field of

- Forensic Genetics
- Veterinary Molecular Diagnostics
- Food Authenticity



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## How DNA Testing works and applies

DNA can be found in all animal and plant cells. If biological material is present in a product, our DNA based testing procedure might be applied.

DNA-based food and product testing needs a well versed laboratory. The treatment of the biological material during the processing (cooking, chemical treatment etc.) may lead to a strong degradation of DNA, making it necessary to use special applications for the detection of the remaining traces of DNA.

Even few molecules of DNA in samples can be found by our laboratory through their selective exponential amplification with the highly sensitive PCR method. Our team of experts has a broad knowledge of all modern DNA applications such as sequencing, Real Time PCR, SNP analysis and multiplexing reactions.

We have extensive and special know-how in handling all kinds of material, ranging from a variety of products to ancient DNA and over 100.000 forensic samples for police forces. Our R&D experience enables us to

do both, choosing from a broad range of available tests and finding innovative and unique solutions as required by our customers:

- the efficient application and optimisation of established methods
- the transfer of small projects to high throughput applications
- development of new tests based on set up of a collection of reference samples and including a complete, documented validation process



## Quality counts

Our combination of ISO 17025 accreditation in the field of Forensic Genetics, Food Authenticity Testing and Veterinary Molecular Diagnostics is unique and our ISO 9001:2000

certified Quality Management is complemented by regular audits by our clients, including the pharmaceutical industry. Regular and successful participation in independent proficiency testing, as well as a range of audits ensure the highest quality level of our tests.

## Partner within a strong network

With more than 5.000 employees across 90 laboratories in 24 countries, Eurofins Scientific is a leading international group of laboratories providing an unparalleled range of testing and support services to the pharmaceutical, food, environmental and consumer products industries.

Together with our partners we can offer a comprehensive spectrum of analysis for food: basic, trade and nutritional analysis (BIG4, BIG8, vitamins, amino acids), residues (mycotoxins, heavy metals, dioxins, PCBs etc.), pesticides, microbiology, GMOs, allergens, detection of food irradiation and authenticity control by isotopic methods, to name but a few of the available tests.

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