

**Faced with the complexity of the food supply chain, ensuring reliable traceability can be an uphill struggle for food operators. This is particularly so in the meat industry. The high number of steps involved in meat production and processing require a robust system to ensure a secure traceability along the entire supply chain.**

### The advantages of a genotyping traceability system:

DNA analysis can contribute to the setting up of a sound traceability system.

Each animal has a unique genetic fingerprint which can serve as a tracer of all products processed from its carcass. The appropriate technical procedure, genotyping in this case, provides the DNA markers that enable both the monitoring and the validation of a theoretical traceability scheme.

Implementing as DNA-based traceability system involves sampling tissue from each animal, characterising its genotype, and then comparing this with the genetic fingerprint of the product to be monitored.

The principles behind the concept:

- the ability to demonstrate, both scientifically and unambiguously, the correspondence

between a piece of meat piece and the animal it came from.

- the potential to monitor and verify the reliability of declared paper traceability systems in the meat supply chain, from the animal's birth to its slaughter, and further along all additional steps up to the consumer.
- validate the origin of a product

The same approach can be used to protect quality « label » meat products from counterfeits.

Today's consumers demand full traceability, including identity, origin and specific characteristics. Being able to demonstrate that a robust system exists is a real competitive differentiator for those involved in the meat sector.



## Eurofins-TAG™ offer

Our molecular biology experts developed this offer 10 years ago in response to the urgent need for traceability during the BSE crisis (bovine spongiform encephalopathy).

This traceability system was developed in partnership with food professionals and local authorities. Its reliability was confirmed by studies on bovine populations of 14,000 animals.

The Eurofins-TAG™ system includes:

- establishing a specific sampling plan for each client;
- elaborating a tissue database (reference samples);
- genotyping the samples (DNA extraction, amplification of selected molecular markers, generation of genetic fingerprints);
- validating the announced traceability by comparison of the genetic fingerprints of the reference and control samples.

Eurofins-TAG™ also provides evidence of the animal's origin, the quality « label », the place of birth, the farming method, the paternity or the lack of genetic particularity.



## 5 reasons to work with Eurofins

- Outstanding competences in molecular biology (experience, experts network);
- Proven ability to manage large number of samples (successful study with 14,000 cattle);
- large experience in the management of banks of tissues and databases;
- Secure data platform ensures confidentiality of data at all times;
- A complete offer in terms of speciation and DNA analyses in general.

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