

Cell Analysis

Introducing the AngusGen™ the Genuine Aberdeen Angus Test

How Authentic is your Aberdeen Angus?

Aberdeen Angus is one of the world's most recognised premium food brands and commands a premium price to the consumer. Unfortunately, as a consequence of its market domination, large numbers of adulterated Aberdeen Angus products have been distributed into the red meat market by non-compliant suppliers. Cell Analysis has discussed the need to develop a genuine Aberdeen Angus test with government and non-government organisations such as the Food Standards Agency (FSA) and the Aberdeen Angus Society. They both agree that there is a clear need for a reliable, fast and cost-effective method of authenticity testing within the red meat sector.



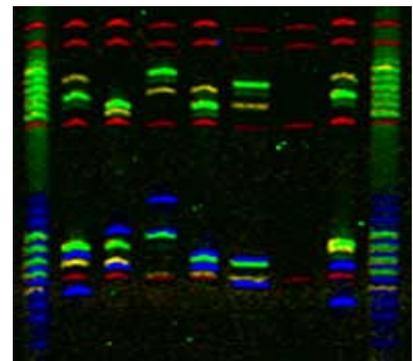
Working with our partners and using our knowledge of genetics Cell Analysis set about developing the AngusGen™ test to correctly discriminate genuine and non-genuine Aberdeen Angus from other breeds such as Hereford. Our partners have supplied Cell Analysis with certified samples of Aberdeen Angus for research purposes allowing us to develop a genetic database, which we used to identify specific genetic markers of the Aberdeen Angus breed.

DNA Markers and Aberdeen Angus Identification

DNA marker technology is now widely recognised as an effective means for the forensic determination of food substances. Recent advances in high-throughput DNA sequencing, computer software and bioinformatics technologies have facilitated the identification of single nucleotide polymorphism (SNP) markers from amplified segments of genomic DNA.

SNPs are abundant in cattle, but the challenge was to identify a set of SNP markers with sufficient power to differentiate particular breeds and crossbred populations. Research at Cell Analysis has uncovered a set of highly informative SNP markers for Aberdeen Angus cattle. These SNP markers enable us to determine whether the paternity and maternity of beef tissue is of Aberdeen Angus origin; and also determine the sex of the tissue source.

Knowledge of these SNP sites has permitted the design of robust, accurate genotype assays based on proprietary technology. The beauty of the AngusGen™ test compared to other methods is its simplicity and speed, enabling results to be gathered quickly, accurately and efficiently. Unlike other detection systems, which require very good quality DNA, the AngusGen™ test can be applied to poor quality DNA from processed, hung and even cooked meats.





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The AngusGen™ Aberdeen Angus Test

The AngusGen™ will confirm the authenticity of your Aberdeen Angus product from:

- a pure Aberdeen Angus source
- a half bred Aberdeen Angus source
- a non-Aberdeen Angus Source
- also available beef gender testing

Cell Analysis is continuing to develop other tests for the red meat sector and our pipeline includes tests for other breeds of cattle such as Hereford and Belgium Blue.

If there is a particular cattle DNA test that interests you then please get in touch with our business development team as Cell Analysis holds a SNP database of various breeds of cattle; so we may be able to help.

The Cell Analysis AngusGen™ test offers many benefits including:

- **Authenticity** - confidence that your product is genuine Aberdeen Angus Beef
- **Sensitivity** - our test will give data using even cooked and processed meat
- **Speed** - most data can be supplied within one working week and retrieved using our web based results service (password encrypted)
- **Cost Effective** - AngusGen™ enables Cell Analysis to offer a very competitive pricing structure
- **Flexibility** - AngusGen™ is a high through-put test using the latest DNA technology and permits Cell Analysis to process many simultaneously
- **Traceability** - An authenticity checking system to add to your existing traceability scheme

Cell Analysis also offers a range of other molecular identification tests for:

- agricultural genotyping (breed genetics) for pigs, sheep etc.
- general food authenticity testing, farm produce, fish, vegetables etc.

Please contact Cell Analysis for further details, or check our website:

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