



FBe Guide relative DNA Parentage Tests and Hereditary Diseases



1. Situation For Flemish region residents

Felis Belgica, our cat association, not only worked intensively in the committee for Breeding Healthy Pets in order to defend our interests in the regulations imposed by the breeding decree. FBe also works hard to set up breeding programs for the different breeds. When these breeding programs are accepted by the Animal Welfare Service, we will be recognized as an association that is allowed to issue pedigrees.

Pedigrees will henceforth only be obtainable for catteries established in Flanders if they follow these breeding programs. The mandatory and recommended tests can be found in the Breeding Decree itself, as well as the provisions on inbreeding and the mandatory parentage test.

Without a parentage test or without the mandatory tests for hereditary diseases or an inbreeding coefficient above the threshold value, FBe may only issue a Certificate of Descent for a kitten born in Flanders. Of course, the FIFe rules regarding diseases also remain in force.

The Flemish breeding decree of 31 May 2024 and amended on 20 December 2024 therefore requires a positive parentage test for kittens born in Flanders if a pedigree is to be obtained. A parentage test consists of comparing the DNA profile of both parents with that of the individual kitten or with one or more kittens from the litter.

In addition to a positive parentage test, the mandatory tests for hereditary breed diseases and an inbreeding coefficient below the thresholds are required to obtain a pedigree.

A cattery, established in Flanders, may not sell kittens with pedigree by law if they do not adhere to the provisions of the Breeding Decree. So requesting pedigrees abroad becomes illegal!

2. DNA Profiles

- There are two types of DNA Profile determinations. In order to perform a parentage test, the parents and the kitten must have undergone a DNA Profile determination of the same type.
- STR DNA Profile according ISAG 2006
 - Only 20 markers
 - ±95% accurate
 - Outdated
 - Not recommended by the Breeding Healthy Pets Committee
- SNP DNA Profile according ISAG 2020
 - More than 100 markers
 - Future-oriented as the number of markers is significantly higher.
 - More accurate than STR DNA Profile
 - Recommended by the committee Breeding Healthy Pets
- DNA Profiles are still supplied as a report in PDF or XML format for the time being.

- There is currently no protocol available that allows different labs to exchange DNA profiles electronically.
- Therefore, until such a protocol is developed, the DNA profile of both parents and the kitten must be drawn up in the same lab in order to perform a parentage test..

3. **SNP DNA Profile Data**

- The identification of the DNA profile is primarily based on the ChipId.
- The nomenclature of SNP DNA profile markers is structured as follows:
 - Chromosome identification. A cat has 19 pairs of chromosomes A1, A2, A3, B1, B2, B3, B4, C1, C2, D1, D2, D3, D4, E1, E2, E3, F1, F2 and the sex chromosome pair X/Y (male), X/X (female).
 - *Position of the base pair on the chromosome (numeric).*
 - *The Base Pair:*
 - *A: Adenine*
 - *C: Cytocine*
 - *G: Guanine*
 - *T: Thymine*
 - Examples:

Chromosome + position	Base pair
Chr_A1.8645803	G/
Chr_A2.171182940	C/
Chr_E2.72592582	A/G
Chr_F1.24753896	A/T

4. **Order STR DNA Profile and Parental Test**

We would like to point out once again that (see paragraph 1 and 2) for parents and kitten:

- DNA Profile must be of the same type (Preference for SNP ISAG 2020)
- Must be performed in the same laboratory until further notice
- The DNA profile of the parents must be determined before or at the same time as that of the kitten in order to be able to perform the parentage test
- According to the breeding decree version December 2024, a DNA profile and parentage analysis must be drawn up for all kittens from the litter traded after July 1 2025 (Born after 23 March) if the STR type is chosen.

Obviously you are free to order at a laboratory of your choice.

5. **Order SNP DNA Profile and Parental Test**

We would like to point out once again that (see paragraph 1 and 2) for parents and kitten:

- DNA Profile must be of the same type (Preference for SNP ISAG 2020)
- Must be performed in the same laboratory until further notice
- The DNA profile of the parents must be determined before or at the same time as that of the kitten in order to be able to perform the parentage test
- According to the breeding decree version December 2024, a DNA profile and parentage analysis must be drawn up for kittens from the litter traded after July 1 2025 (Born after 23 March)
- If you opt for the SNP according to your own preference::
 - Individual SNP DNA Profile: have an SNP DNA Profile and parentage analysis drawn up for all kittens in the litter.
 - Litter SNP DNA Profile:
 - For a litter of 5 or less, swabs will be sent of each kitten and only one SNP DNA Profile and parentage analysis will be drawn up from a randomly selected sample by the lab..
 - For a litter of 6 to 10, swabs will be sent of each kitten and only two SNP DNA Profiles and parentage analysis will be drawn up from randomly selected samples by the lab.
 - For a litter of more than 10, swabs will be sent of each kitten and only three SNP DNA Profiles and parentage analysis will be drawn up from randomly selected samples by the lab.
 - The lab will prepare a report with the findings regarding the parentage verification and the number of samples received.
 - Note: For kittens that are going into breeding, an individual profile will have to be made later.

6. VHL from 3 February 2025

6.1. Account

- If you don't have an account yet, register your cattery.
- Log in to your account(s)



6.2. DNA Profiles Combibreed (www.combibreed.com)

- Select the test collection (Cats and Ancestry) / (Cats and Parentage)
- K205 DNA Profile 1 Cat - STR Price €49.61
- K200 DNA Profile 1 Cat - STR with parentage verification Price €49.61
- K235 DNA Profile 1 Cat - SNP Price €30.44 by using the FBe discount code [Ask code to guido@felisbelgica.be](mailto:guido@felisbelgica.be)
- K230 DNA Profile 1 Cat - SNP with parentage verification Price €35.70 by using the FBe discount code [Ask code to guido@felisbelgica.be](mailto:guido@felisbelgica.be)
- K241 DNA Profile Litter - SNP up to 5 kitten with random parentage verification of 1 kitten Price €67.59
- K242 DNA Profile Litter - SNP from 6 to 10 kitten with random parentage verification of 2 kitten Price €123.08
- K242 DNA Profile Litter - SNP for more than 10 kitten with random parentage verification of 3 kitten Price €178.57

6.3. DNA tests hereditary diseases colours Combibreed (www.combibreed.com)

- Select the test collection (Cats en Package)
- he breed specific packages for hereditary diseases and specific colour tests as well as the individual tests for certain hereditary diseases and colours are made available at -10% for FBe members with the FBe discount code [Ask code to guido@felisbelgica.be](mailto:guido@felisbelgica.be).
- The discount codes are only for use by FBe members. So be discreet with them.

6.4. Ordering Testpacke(s)

- Order on www.combibreed.com your packages
 - For K235 or K205 DNA Profile identify the cat by:
 - Full Pedigree name
 - Chip Number
 - Breed
 - Tick the association to which the report should be sent to: “FBe”
 - For K230, K200, K241, K242, K243 DNA Profile with parental analysis identify the cat by:
 - Full Pedigree Name if already known or a unique indicator like kitten litter G.1, kitten litter G.2 etc...
 - Chip Number
 - Breed
 - The full pedigree name and chip number and breed of both parents
 - Tick the association to which the report should be sent to: “FBe”
 - When checking out in the web shop, use the discount codes provided for FBe.
 - Print the order confirmation
- The Testpackages ordered via www.combibreed.com are delivered via PostNL. Shipping costs €12.10 per order without limit on the number of orders within Europe. Returns can be sent to:

Dr. van Haeringen Laboratorium
Agro Business Park 100
6708 PW Wageningen
- The samples must be identified on the swab container with the Chip number by applying a ChipId sticker vertically so that it can be easily scanned (Do not overlap all the way around).
- The samples **must** also be identified on the order forms which are in annex:
 - Annex I for ordering parental analysis for individual kitten or a litter
 - Annex II for ordering DNA profiles, DNA hereditary diseases and specific colour tests:
 - Your **identification**
 - The Pedigree Name of the cat kitten litter G1, G.2 etc., breed and **surly the Chip number** of the kitten.
 - The pedigree name, breed and chip number of the parents if a parentage analysis is required.
- For the parent animals it is sufficient to mention the pedigree name, Breed and chip number if a DNA profile was already established at Zoolyx (BE),

VHL (NL) or Certagen (DE). Else a separate DNA profile needs to be determined for the parent(s).

- If you are doing an outdoor mating in Belgium, the Netherlands or Germany, the sire owner can help you by requesting a SNP DNA Profile via the local Combibreed website.
- In case of an outdoor mating in other countries, it is best to take a test package with you from Belgium and deliver it to your laboratory or ask the sire owner to send a sample to Combibreed.
- It is obvious that a kitten can only be swabbed after the chip number is known.

6.5. Reporting DNA Profiles and Parentage analysis

- The turnaround time for DNA testing is 10 working days from the arrival of the sample in the lab.
- Upon receipt, check carefully whether the gender of the kitten was the same as that stated on the order form.
- VHL will mail a copy to FBe. The pedigree secretariats will subsequently introduce the parentage analysis results in the pedigree book.
 - Category 1 & 2 kathleen@felisbelgica.be
 - Category 2 & 3 guido@felisbelgica.be