



Breed Certificate

Daryl

IN COLLABORATION WITH



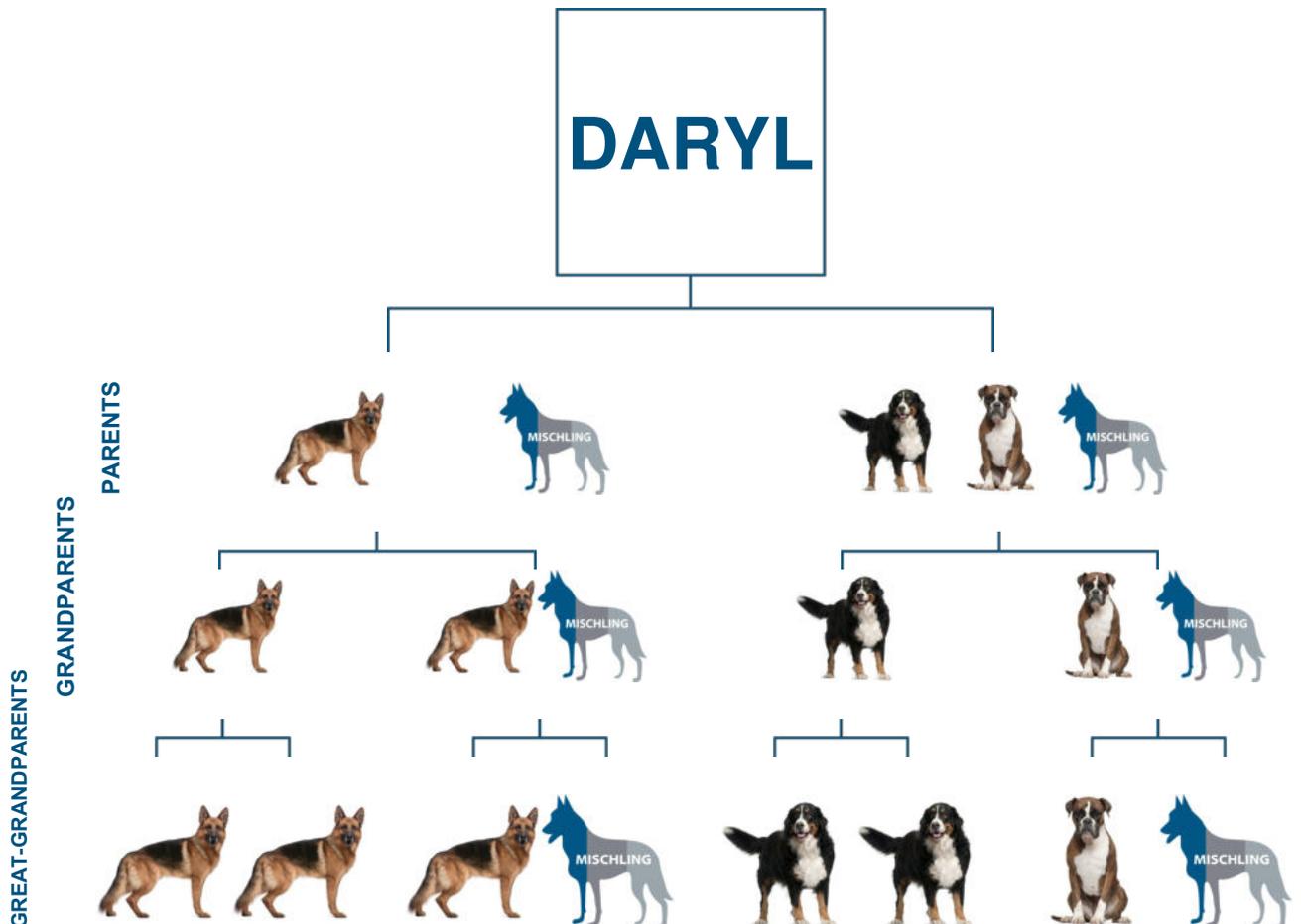


Breed Identification Results:

Daryl is a Mix consisting of

German Shepherd Dog, Bernese Mountain Dog, Boxer and Mixed Breed

The computer algorithm performed over seven million calculations using 11 different models (from a single breed to complex combinations of breeds) to predict the most likely combination of pure and mixed breed dogs in the last 3 ancestral generations that best fit the DNA marker pattern observed in the tested dog. The ancestry chart depicting the best statistical result of this analysis is shown in the picture below.



Breed Distribution in Percent

What exactly does the result mean and how much of the different breeds are really in the ancestors of your dog? The genetic data obtained from your dog's DNA have been analyzed and evaluated by a special computer program. With this algorithm several million calculations were performed. The following breed distribution was found in your darling:



GERMAN SHEPHERD DOG: 37.5%



MIXED BREED PORTION: 25%



BERNESE MOUNTAIN DOG: 25%



BOXER: 12.5%

PREDICTED ADULT WEIGHT

Based on the markers from genetic analysis and the breeds found in your dog's ancestry, the likely adult weight of your dog was calculated. The weight profile represents the unique mix and proportion of the different breeds identified.

- If intact, the predicted weight is between 26 and 42 kg
- If neutered, the predicted weight is between 13 and 22 kg

There are many factors that can influence a dog's adult weight, including sex and neuter status. Both factors have been used to calculate the predicted body weight of your dog. An additional influence on body weight has a proper diet and sufficient exercise. Please keep in mind that overweight is not only a serious human problem but can also affect your dog. Overweight should be taken seriously!



POTENTIAL BREEDS IN THE MIXED BREED PORTION

Within the last 3 generations a portion of your dog's ancestry was predicted as mixed breed portion. It is difficult to identify strong breed signatures in this portion for what reason your dog's DNA was used to identify the 5 most likely breeds with the strongest statistical likelihood. These 5 breeds are shown below. The breeds are ranked in order of strength with the most likely at the top of the list. One or more of these breeds may have contributed to the genetic makeup of your dog's ancestors. Please keep in mind that it is very unlikely that all these breeds are actually represented in your dog's ancestry. There is also the possibility that there are one or more breeds, which can currently be not detected because they are not present in the database.



German Hunting Terrier



Detection
Threshold



Peruvian Inca Orchid



Sloughi



Collie



American Eskimo Dog





HOW THE TEST WORKS

At the very beginning of your dog's breed determination, DNA was isolated from the mucosa cells and analyzed using more than 1800 genetic markers. Each breed has its own genetic make-up and marker distribution and this fact can be used to determine which breeds are represented in your dog. This is done by a computer or to be more specific by a special algorithm designed to consider all the possible pedigree trees in the last three generations. The considered trees include simple pedigrees with just one breed as in purebred dogs, two different breeds like in designer dog, all the way up to highly complex trees with eight different great-grandparent breed included. The computer program uses information of numerous breeds and varieties (e.g., miniature schnauzers, giant schnauzers, etc.) included in the breed database. For each of the million possible combinations of pedigree trees the computer gave each a score representing how well the selected breeds match with your dog's DNA data. The pedigree with the best overall score is shown in the ancestry chart. Only breeds that reached a set confidence threshold for reporting are shown in the ancestry chart.



Certificate

Breed Identification of Daryl

This certificate confirms the genetic background of your dog, following careful analysis of more than 1800 genetic markers. The resulting matches of purebred dog breed signatures listed above included the last 3 generations of your dog's ancestry and were performed by using proprietary breed detection algorithm.

Daryl is a mix of

**German Shepherd Dog, Bernese Mountain Dog, Boxer
und Mixed Breed**

