



OZZY



DNA Test Report

Test Date: January 11th, 2024

embk.me/ozzy1816

BREED MIX

- █ Siberian Husky : 54.4%
- █ German Shepherd Dog : 22.0%
- █ Alaskan Malamute : 13.9%
- █ Gray Wolf : 9.7%

GENETIC STATS

Wolfiness: 6.9 % HIGH

TEST DETAILS

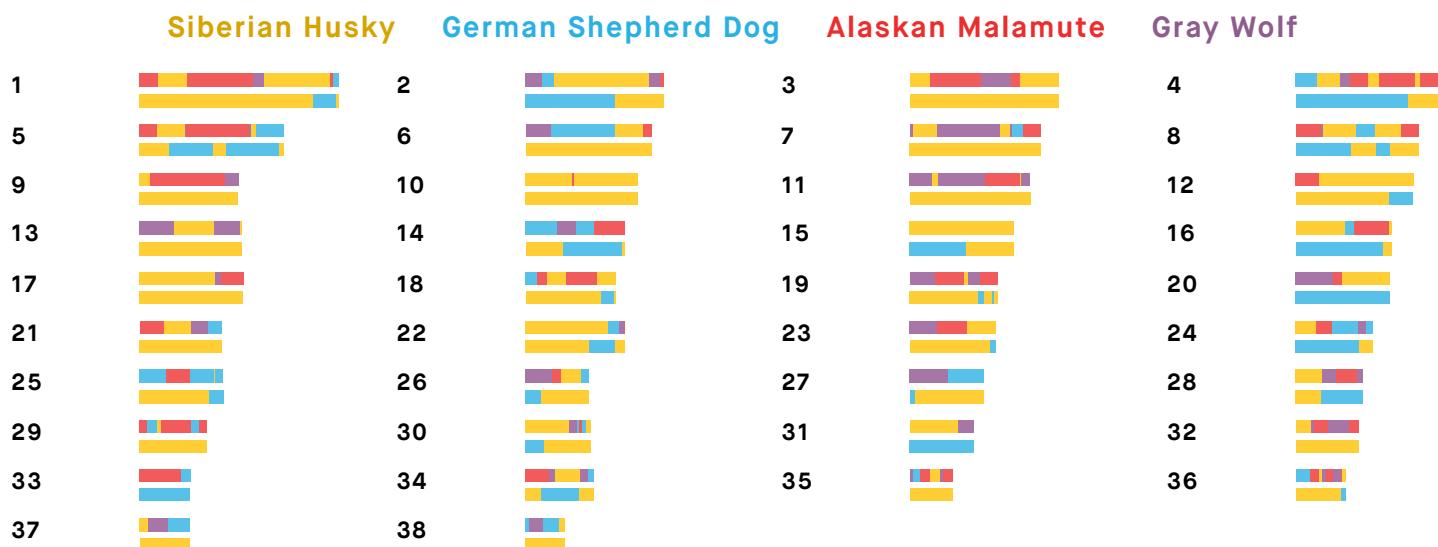
Kit number: EM-28999059

Swab number: 31220812502195

BREED MIX BY CHROMOSOME

Our advanced test identifies from where Ozzy inherited every part of the chromosome pairs in his genome.

Breed colors:





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SIBERIAN HUSKY



The Siberian Husky originated from the extreme north east of Siberia. They were initially domesticated by the Chukchi -an ancient population that thrived by herding reindeer and moving with each season to new grazing regions. They came to America in 1909 and found their place in the Alaskan wilderness. They love to be out in cold weather and are known to be the ideal sled dog. They have strong insulated paws that are perfect for traction in the snow. The Siberian Husky also has two layers in their coat that protects them from Arctic winters.

Fun Fact

In 1925 a team of Siberian Huskies saved Nome, Alaska by carrying the serum to cure diphtheria a considerable distance by sled. The run was done in the middle of a blizzard and in conditions below -23 degrees Fahrenheit. The run is remembered by the annual Iditarod Trail Sled Race, and Balto, the famous sled dog who led his team through the final leg.

RELATED BREEDS



Alaskan Malamute
Sibling breed



Greenland Dog
Cousin breed



Samoyed
Cousin breed





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GERMAN SHEPHERD DOG



The German Shepherd dog is the second most popular dog breed in the United States, and the fourth most popular in the United Kingdom (where it is known as the Alsatian). This breed was standardized in Germany at the end of the 19th century from local dogs used for herding and livestock guarding. Their confidence, courageousness and keen sense of smell coupled with their notable intelligence make them highly suited to police work, military roles, and search and rescue. German Shepherds require regular physical and mental exercise and have a heavy shedding coat that comes in both short and long varieties. They were first recognized by the AKC in 1908 and later became fashionable as soldiers returning from WWI spoke highly of the German dogs and Hollywood popularized the breed with stars like Strongheart and Rin Tin Tin.

Fun Fact

Despite being sometimes called the "Alsatian wolf dog", German Shepherds are not true wolf dogs— they are 100% dog. Nevertheless, German shepherds were crossed with wolves in the past to form the Czechoslovakian and Saarloos wolfdog breeds. German Shepherds, along with other breeds and sled dogs, were also used in the creation of the Chinook breed.

RELATED BREEDS



White Shepherd
Sibling breed



Belgian Sheepdog
Cousin breed



Belgian Tervuren
Cousin breed



Belgian Malinois
Cousin breed



Dutch Shepherd
Cousin breed

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ALASKAN MALAMUTE



Fun Fact

The Alaskan Malamute occasionally comes in a long-haired "woolly" variety due to a recessive gene that causes a longer coat.

The Alaskan Malamute has a long and interesting history. Genetic analysis has shown that they're one of the most ancient breeds, having diverged from a population of working sled dogs that crossed into Alaska via the Bering Strait over 4,000 years ago. Along with breeds like the Xoloitzcuintli, this makes them one of the oldest dog breeds from the Americas. As a more primitive breed, Malamutes tend to have higher Embark "wolfiness" scores, which indicates that they have more ancient genetic variants in their genome than most other breeds -- a holdover from historical interbreeding between working sled dogs and wolves (though the modern Malamute does not have recent wolf ancestry). The Malamute is still sometimes used as a working dog today, but they've also endeared themselves to pet owners with their intelligence, beautiful coats, and occasional mischief. Though most think of Alaskan Malamutes as having gray, wolf-colored coats, they come in a variety of shades and colors including wolf sable, red, white, and black. They may have white markings such as a white blaze and points. Although the breed standard dictates a shorter coat, the occasional long-haired Malamute can pop up due to a recessive mutation. Malamutes should have a double coat which helps insulate them even in the coldest climates. As anyone with a Malamute can attest, they shed seasonally and considerably. The breed can vary in size, but most Malamutes weigh in at around 75-85 pounds. While Malamutes are affectionate and playful dogs, they also carry an air of dignity. The ability to work is emphasized first and foremost in their breed standard, which means that even Malamutes who don't pull sleds still need vigorous exercise. If not given enough exercise, Malamutes often make their own fun which may include destructive chewing, howling, and other activities owners may not find amusing. An active Malamute is a happy Malamute, and a wonderful family companion.

RELATED BREEDS



Siberian Husky
Sibling breed



Greenland Dog
Cousin breed



Chinook
Cousin breed



Carolina Dog
Cousin breed

embark



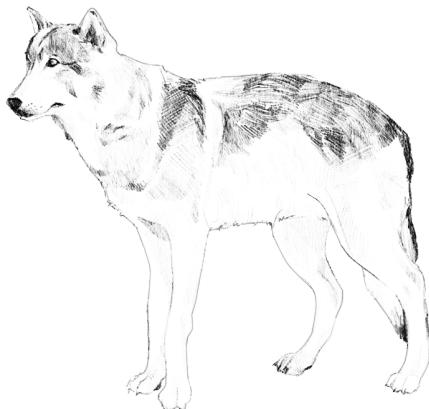
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GRAY WOLF

The Gray Wolf is clearly not a dog breed, though these wild animals are the ancestors of the domesticated dog. The Gray Wolf, or Timber Wolf, is the largest wolf species. It is understood that these wolves play an essential part in maintaining balance in their ecosystems, keeping deer and elk populations in check. These are social animals with a complex pack hierarchy. The Gray Wolf is found widespread throughout the Northern Hemisphere. Wolves are typically shy and reserved around people, but can obviously be extremely dangerous. While the Gray Wolf has recently entered the domestic dog gene-pool again through the rising popularity of wolf hybrids, it is important to remember that a wolf is not a pet.

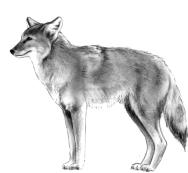
Fun Fact

On average, these wolves will eat 20 to 30 pounds in a sitting, but they can also go up to 14 days between meals with ease.

RELATED BREEDS



**Central Asian
Village Dog**
Sibling breed



Coyote
Cousin breed

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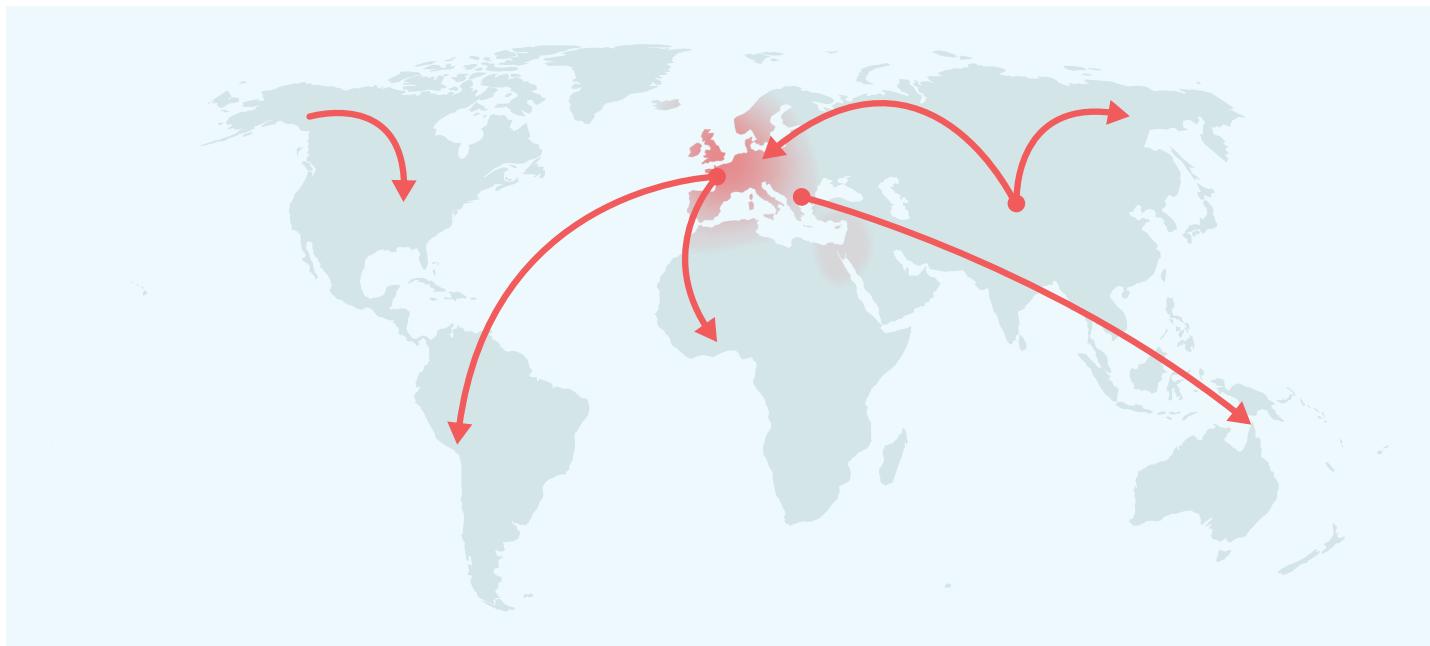


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MATERNAL LINE



Through Ozzy's mitochondrial DNA we can trace his mother's ancestry back to where dogs and people first became friends. This map helps you visualize the routes that his ancestors took to your home. Their story is described below the map.

HAPLOGROUP: A1e

This female lineage likely stems from some of the original Central Asian wolves that were domesticated into modern dogs starting about 15,000 years ago. It seemed to be a fairly rare dog line for most of dog history until the past 300 years, when the lineage seemed to "explode" out and spread quickly. What really separates this group from the pack is its presence in Alaskan village dogs and Samoyeds. It is possible that this was an indigenous lineage brought to the Americas from Siberia when people were first starting to make that trip themselves! We see this lineage pop up in overwhelming numbers of Irish Wolfhounds, and it also occurs frequently in popular large breeds like Bernese Mountain Dogs, Saint Bernards and Great Danes. Shetland Sheepdogs are also common members of this maternal line, and we see it a lot in Boxers, too. Though it may be all mixed up with European dogs thanks to recent breeding events, its origins in the Americas makes it a very exciting lineage for sure!

HAPLOTYPE: A2a

Part of the large A1e haplogroup, we see this haplotype in village dogs up and down the Americas as well as French Polynesia. Among the breed dogs we have detected it in, we see it most frequently in English Springer Spaniels, Papillons, and Collies.



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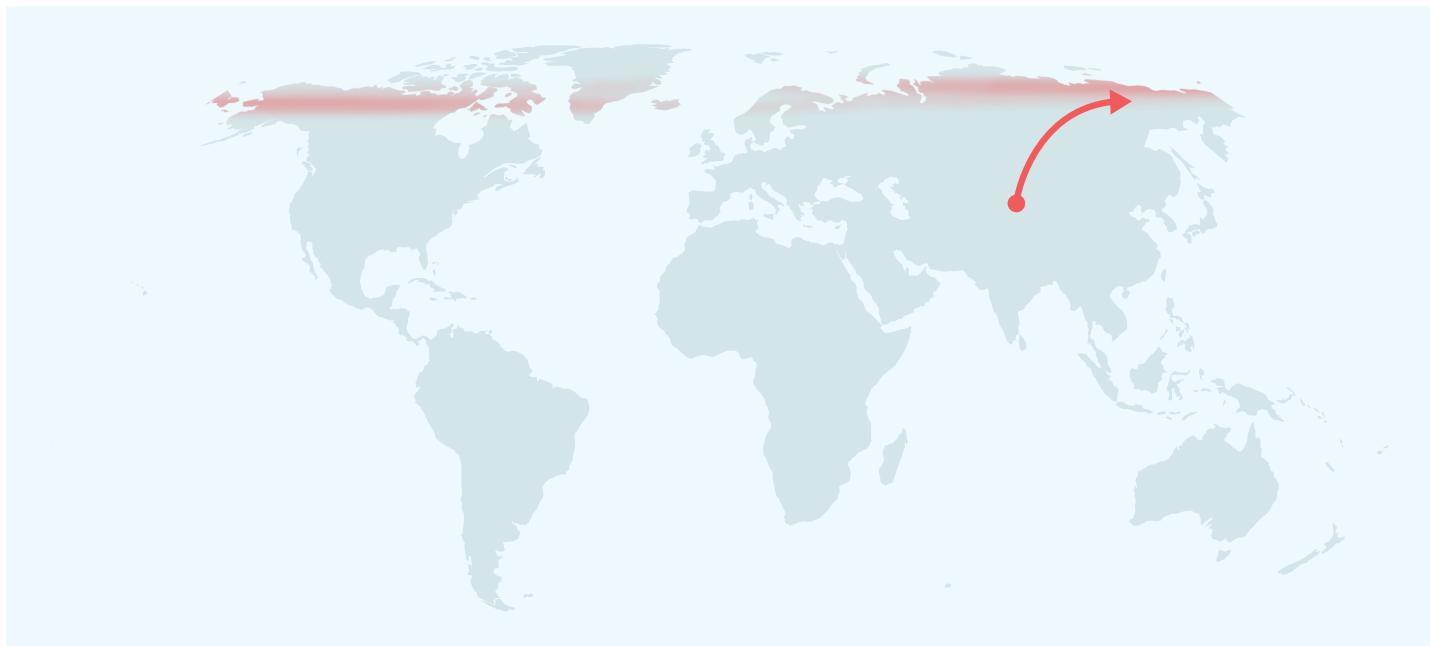
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PATERNAL LINE



Through Ozzy's Y chromosome we can trace his father's ancestry back to where dogs and people first became friends. This map helps you visualize the routes that his ancestors took to your home. Their story is described below the map.

HAPLOGROUP: A

A is the distant relative of some of the most numerous paternal lineages in the world. Characterized by a single sub-lineage, this is a rare and interesting paternal line! The A line is found most commonly in Siberian Huskies and in Alaskan village dogs. It seems plausible that this paternal lineage diverged within the last 10,000 years from a group arriving with the first Arctic explorers. The recent ancestors of dogs with this lineage actually allowed humans to survive in some of the most forbidding conditions on the face of the earth!

HAPLOTYPE: Hc.1

The lone member of the A haplogroup, this haplotype occurs most commonly in Siberian Huskies and village dogs from Alaska.



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HEALTH AND TRAITS

We're hard at work preparing Ozzy's Health and Traits results. We'll email you once it is ready!