

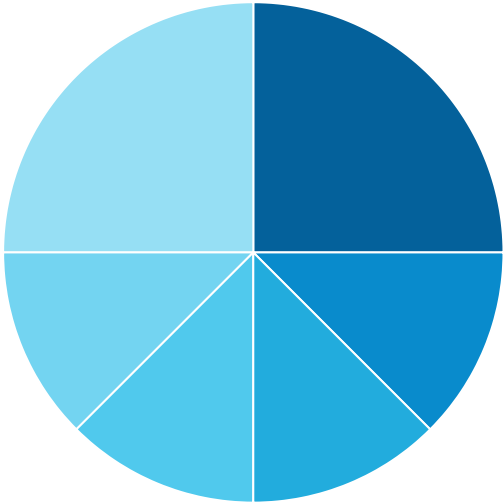
DISCOVER ALL

ABOUT PEPPER K

The results are in! Let's take a look at what the DNA told us about Pepper K's ancestry...

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PEPPER K'S BREED BY PERCENTAGE



- 25% Australian Shepherd
- 12.5% Chow Chow
- 12.5% Siberian Husky
- 12.5% Collie
- 12.5% Australian Cattle Dog
- 25% Breed Group(s)
 - Hound
 - Terrier
 - Herding

Exciting news, the results are in! Here's what makes Pepper K so unique. Using the data generated from Pepper K's DNA, our sophisticated computer algorithm performed over 17 million calculations! What you see here is Pepper K's ancestry by percentage.

AUSTRALIAN SHEPHERD

A DOG THAT LOVES TO HERD ANYTHING.

- Very intelligent, obedient, active, energetic, and watchful dogs.
- Australian Shepherds seem to enjoy dog sports such as herding, agility, tracking, flyball, Frisbee, rally and competitive obedience.
- Eager to learn and respond well to reward-based training.
- Herding tendencies may lead to chasing cars, herding children, or barking.

▶ Height

18 - 23 in

▶ Weight (show)

40 - 60 lb

▶ Weight (pet)

38 - 66 lb



DID YOU KNOW?

With a name like the 'Australian Shepherd', it's not surprising that many people don't know that these alert dogs began life in the United States. In the 1800s, Basque Shepherds that were living in Australia were brought over to help breed a new kind of herding dog. The 'Aussie' (as they're sometimes affectionately called) grew significantly in both population and popularity after World War II. In recent decades, they've become known for their work at rodeos and horse shows. For a dog that loves to herd anything (be it cars, children or other pets), the Australian Shepherd is also known for being a follower -they'll follow you absolutely anywhere. It's what makes them such loving and loyal pets.

CHOW CHOW

THESE NOBLE DOGS ARE ORIGINALLY FROM NORTHERN CHINA.

- Reputation as a loyal family dog.
- Reserved and wary with strangers.
- Independent spirit, but responds to reward-based obedience training.
- The Chow Chow was originally bred for various purposes including the guarding of people and/or property. Individual members of this breed will benefit from firm and dedicated training to temper this guarding tendency, and thus help to maintain safety as a household companion.

▶ Height
18 - 22 in

▶ Weight (show)
40 - 65 lb

▶ Weight (pet)
42 - 69 lb



DID YOU KNOW?

Aloof and loyal, these noble dogs are originally from northern China (though some have argued they migrated there from Mongolia and elsewhere). In their native land, they are called Songshi Quan, which means 'puffy-lion dog'. It is thought the breed first appeared 2,000 years ago. They were mainly used for hunting and guarding sacred temples from evil entities. The East India Company brought them to England in 1781 and Queen Victoria received one as a gift in 1865. During the 1880s, more and more Chow Chows were imported in large numbers. Today, these puffy lions are the pride of many an owner's home.

SIBERIAN HUSKY

INTELLIGENT AND HARD-WORKING DOGS.

- Active, social, and usually friendly dogs; often do well with children and other dogs.
- Siberian Huskies are energetic dogs and participate in dog sports such as sledding, skijoring (pulling a skier), and carting.
- Stubborn tendencies may be lessened by using reward-based training involving small treats and favorite toys.
- May engage in digging; might chase wildlife.

▶ Height

21 - 23 in

▶ Weight (show)

35 - 60 lb

▶ Weight (pet)

34 - 67 lb



DID YOU KNOW?

These intelligent and hard-working dogs have been used in a number of roles over the centuries. In no particular order, they include herding reindeer, pulling sleds and even keeping children warm. They have a long history of helping humans, in fact. Some say the breed began with the Chukchi tribe of Siberia, though various other tribes are occasionally credited with helping them evolve too. Siberian Huskies were made famous in 1925 when they delivered a diphtheria serum after a city was stricken by an epidemic. Though built for the harsher climates of Siberia, they managed to find their way to America in 1909. As one of the most popular dogs in the United States today, we're glad they made the journey.

COLLIE

THESE SUPER INTELLIGENT DOGS ARE ORIGINALLY FROM SCOTLAND.

- Intelligent, obedient, active, and watchful dogs.
- Collies are eager to learn especially with reward-based training.
- Collies seem to enjoy dog sports such as agility, flyball, Frisbee, tracking, rally and competitive obedience.
- Although they are often good with children and are usually friendly, some Collies can be wary or reserved with strangers.

▶ Height

20 - 24 in

▶ Weight (show)

45 - 75 lb

▶ Weight (pet)

44 - 79 lb



DID YOU KNOW?

These super intelligent dogs are originally from Scotland, where they were bred for centuries to be shepherds and guard dogs. The Collie is so smart they have been used for many other purposes too, including water rescue and being guide dogs. Many famous faces have owned one of these wonderful pets, including Queen Victoria, J.P. Morgan and Presidents Coolidge and Hoover. The Collie's reputation for bravery and loyalty was probably best immortalized by the release of the 1943 film, 'Lassie Come Home' - as well as the long-running TV series that followed. Fortunately, we don't need to be trapped inside a burning barn or down a well to know these dogs always have our best interests at heart.

AUSTRALIAN CATTLE DOG

IT'S NOT UNCOMMON TO FIND THEM CHASING CARS.

- Intelligent, active, energetic, and watchful dogs.
- Eager to learn and responds well to reward-based training, allowing them to participate in activities such as agility, flyball, and Frisbee.
- Herding tendencies may lead to chasing cars or herding children.
- May be suspicious or cautious around strangers requiring careful socialization with rewards to prevent or reduce fear-based defensive aggression.

▶ Height

17 - 20 in

▶ Weight (show)

33 - 44 lb

▶ Weight (pet)

31 - 53 lb



DID YOU KNOW?

The clever and free-spirited Australian Cattle dog is the result, quite literally, of the Old World and New World coming together. More specifically, a native Dingo and a blue-speckled, smooth-coated Collie imported all the way from Scotland. It was their offspring in the 1830s that became the breed's first direct ancestor. The aim was to produce a vigilant herding dog who could also handle Australia's harsh climate. The experiment was a success - perhaps too much so. Over 150 years later, they still have very strong herding instincts. It's not uncommon to find them chasing cars or even trying to round up children. But those same instincts also make them very protective and loyal. And very dear to us.

BREED GROUPS PEPPER K IS MOST LIKELY RELATED TO

We tested Pepper K's ancestry for specific pure breeds, going back three generations (or to the great-grandparents). Beyond this, today's technology can only identify down to the genetic "group" level (sporting, toy, guard, etc.). We know the breeds found in these groups and that Pepper K may share genetic similarities with many of them. We've arranged these in order, with the most likely starting at the top. The breeds displayed are examples of breeds in each specific group. The full list for each can be found on the breeds we analyzed, click on the link below.

HOUND GROUP

The most common ancestral trait of this group is being used for hunting. Some use acute powers of scent to follow a trail while others demonstrate the gift of stamina as they run down a quarry. Beyond these two common traits, however, generalizations about hounds are hard to come by as the group is comprised of a very diverse lot of breeds.

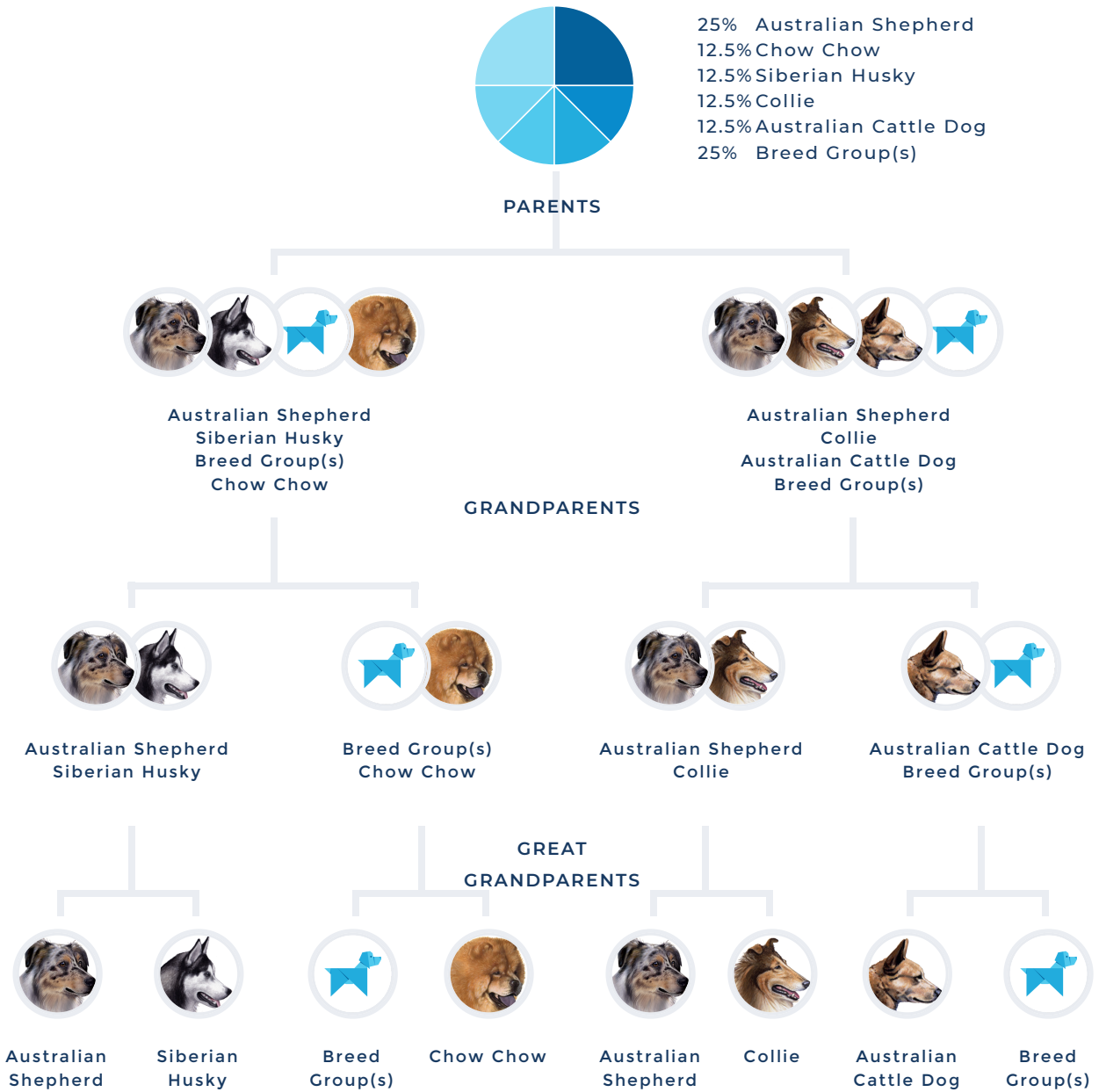
TERRIER GROUP

The Terrier Group ancestors were bred to hunt and kill vermin. They are often characterized as feisty and energetic dogs whose sizes range from fairly small to much larger.

HERDING GROUP

The herding group is a diverse category. These highly intelligent breeds were developed to guard and control the movement of livestock.

PEPPER K'S FAMILY TREE



PEPPER K'S HEALTH RESULTS

SAMPLE ID: T204665

We have tested Pepper K's DNA for the following important genetic health conditions. The results can be seen below. For more detailed information on each of these diseases, please log into your account and review your comprehensive health results.

MULTIDRUG SENSITIVITY (MDR1)



AT RISK

Pepper K has one copy of the MDR1 mutation, and may be at risk of adverse side effects to some commonly used drugs. Please share these results with your veterinarian.

EXERCISE-INDUCED COLLAPSE (EIC)



CLEAR

Pepper K has no copies of the EIC mutation and should not be affected by the disorder due to this genetic cause.

PEPPER K'S TRAITS

SAMPLE ID: T204665

Furnishings

Pepper K does not carry any copies of the gene for 'furnishings' (which would give them a fuzzy beard and eyebrows). This means they probably have smooth, short facial hair. Did you know you can often get 'furnished' and 'unfurnished' dogs within the same breed?

Coat Color Subtypes

Genotype: aw/at M/
m h/h sp/sp

Pepper K carries two copies of the gene for white spotting as opposed to one, which means they'll probably have a significant amount of white in their coat, and also carries the gene for 'merle', which causes any dark pigment in the coat to become a patchy mix of grey and dark (either black or brown). Did you know some breeds that people think are white (like say Dalmatians or white Boxers) actually just have two copies of the white spotting gene?

Base Pigment Color

Genotype: B/bc

Pepper K carries the gene for the 'expression' of black pigment. This means that even though their overall coat color may not be black, they are still able to make black pigment. They will also likely have black around their eyes, a black nose, and may even have black pads on their feet.

Coat Length and Type

Genotype: TT CT

Pepper K's coat is probably on the long side and wavy. Did you know this is because they show one copy of the gene for curl? If they'd shown two, their coat would exhibit tight curls, like a poodle.

Leg Length

Genotype: DD

Pepper K's legs should be relatively long in length, based on this marker (though there can be other genes that affect leg length). Did you know different dogs can have different leg lengths even if they are the same breed?

Ear Carriage

Genotype: TT

A lot of factors can decide the shape of a dog's ear. But as far as we can tell, Pepper K probably has perk or upright ears. Did you know this type of ear is recessive (which means you need a copy from each parent to show it)? Common breeds with upright ears include German Shepherd, Chihuahua and Husky.

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PEPPER K'S TRAITS CONTINUED

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Tail Length Genotype: CC	Pepper K likely was born with a long tail - although the exact length can vary from dog to dog. Long tails are sometimes known as 'coffee table clearers'. (If you've ever seen a long-tailed dog get excited near one, you'll know exactly why.)
Coat Color Main Possibilities Genotype: aw/at E/e KB/ky,kbr/ky I/wt	Pepper K appears to be mostly dark in color (either black or brown). Alternatively, they could be 'brindle' (have 'tiger' striping) and 'agouti' (which means they have bands of different color on each hair. Some dogs with this result also have tan markings in some areas. (If they do, congratulations by the way. This is seriously rare).
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IDEAL WEIGHT

SAMPLE ID: T204665

Based on our findings, we've calculated that Pepper K's ideal, adult weight should be:

33 lbs - 55 lbs

We've factored everything we know about Pepper K in predicting a healthy, adult weight. However environmental factors such as the nutrition of Pepper K's mom during pregnancy and nursing, Pepper K's nutrition during critical growth months, illness/parasites/ticks/fleas, and exercise levels can affect the actual weight of Pepper K.

CALCULATING WEIGHT

Our weight-predictive algorithm uses a combination of the following to calculate Pepper K's ideal, adult weight:

- The published weight ranges of more than 200 purebred dogs.
- The observed weights of purebred dogs, each with an ideal Body Condition Score, from the Banfield® Pet Hospital database.
- Breeds the WISDOM PANEL™ test analysis has identified that reflect a dog's true heritage and genetic complexity.
- A genetic algorithm based on mixed-breed data that calculates the contribution of each set of chromosomal genetic markers.

ENVIRONMENTAL EFFECTS ON WEIGHT

A dog's early life is very important in determining how they will grow and develop. They can fail to reach their ideal weight for a number of reasons, including the diet of their mother during pregnancy and nursing (as well as their own diet as puppies). Illness and disease can play a part too, as can having parasites like roundworms or fleas and ticks. For dogs who are adopted after they are fully-grown, it may be harder to find the historical background on these factors.

Maintaining a healthy weight is a key factor in Pepper K having a long and healthy life.

WISDOMTM PANEL



STATEMENT OF AUTHENTICATION

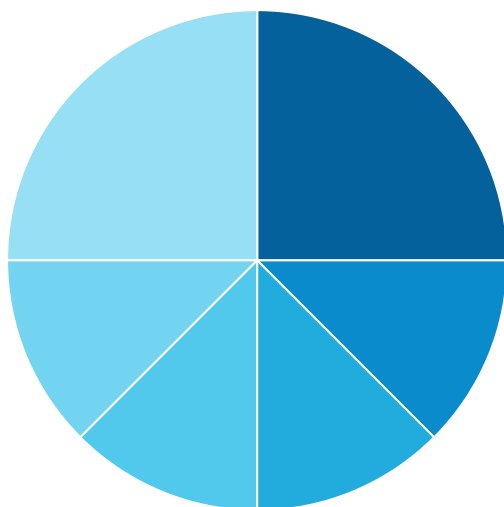
Owner's Name: Rod Allrich

Dog's Name: Pepper K

Sample Id: T204665

Date: December 17, 2019

This certifies the authenticity of Pepper K's canine genetic background as determined, following the careful analysis of more than 1800 genetic markers, by the WISDOM PANELTM Canine DNA Test. The purebred breed signature matches included in the analysis are those that were detected in the last three generations of Pepper K's ancestry using the Wisdom Health proprietary breed detection algorithm.



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