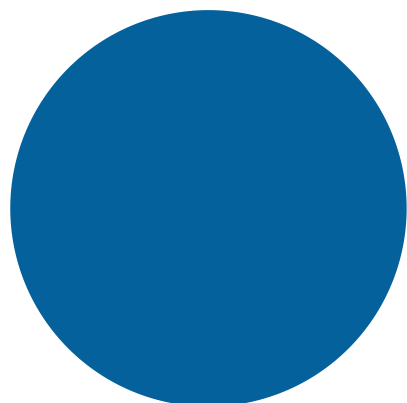


DISCOVER ALL
ABOUT PAX

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

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PAX'S BREED BY PERCENTAGE



● 100% Cavalier King Charles Spaniel

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

CAVALIER KING CHARLES SPANIEL

THESE CUTE LITTLE DOGS WERE USE AS A LADY'S LAPDOGS,

- Calm, playful, and usually friendly dogs.
- Enjoy dog sports such as agility, tracking, and obedience.
- Often are food motivated so respond well to reward-based training.
- Reputation as a good family dog.

▶ **Height**

12 - 13 in

▶ **Weight (show)**

11 - 20 lb

▶ **Weight (pet)**

11 - 23 lb



DID YOU KNOW?

A direct descendant of the King Charles Spaniel and English toy spaniels, these cute little dogs were used as a lady's lapdogs, providing companionship and warmth back in the 16th century. They were also used to attract fleas during the period, so as to protect their owners from contracting the plague. As the breed developed, and their prominent nose became increasingly common, King Charles Spaniels with longer faces were classified as 'Cavalier' King Charles Spaniels, to differentiate them from the King Charles Spaniels with shorter snouts. One thing's for sure. We'd all have long faces if these wonderful dogs didn't exist.

PAX'S HEALTH RESULTS

SAMPLE ID: H048504

We have tested Pax's DNA for more than 150 disease-causing mutations. Below is a summary of our findings. For more detailed information on each of these diseases, please log into your account and review your comprehensive health results.



AT RISK - 0

Being "At Risk" means Pax may show or develop signs of one of the following genetic diseases. Please be sure to read the condition information carefully and share these results with your veterinarian.



CARRIER - 0

Carrier status is where a dog has inherited one copy of a disease-causing mutation, when two copies are usually needed for disease signs to occur. The good news is that carriers are unlikely to show disease signs, but there may be a slight increase in risk of disease for some conditions. Please be sure to read the condition information carefully and share these results with your veterinarian.



CLEAR - 159

Pax inherited zero copies of these disease mutations. Be sure to use our share feature to let your veterinarian know about Pax's results. For some of the conditions there may still be undiscovered mutations and/or environmental factors that could lead to similar disease signs. These clear results will help narrow down a future diagnosis if Pax ever gets sick.

PAX'S TRAITS

SAMPLE ID: H048504

Furnishings

Pax 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: at/at m/
m h/h sp/sp**

Pax 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. 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?

Coat Color Main Possibilities

**Genotype: at/at e/e
ky/ky I/I**

Pax appears to be a yellow or tan color. Dogs with this result can actually show colors from white all the way to deep red. (Did you know because your dog has this genotype, they cannot make black pigment in their coats, so won't have even a single black hair?)

Leg Length

Genotype: DD

Pax'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: CC

A lot of factors can decide the shape of a dog's ear. But as far as we can tell, Pax probably has 'drop' or floppy ears. This type of ear is dominant, needing only one copy of the gene to show it. That's why it's so common in mixed breed dogs. Common breeds with drop ears include hounds, Labrador, Poodle and spaniels.

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Tail Length
Genotype: CC

Pax 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.)

Base Pigment Color
Genotype: B/B

Pax 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 CC

Pax's coat is probably on the long side. The exact length of a dog's coat is down to several factors so it can vary. Did you know long hair is actually a recessive trait and results from inheriting two 'broken' copies of the gene that tells hairs to stop growing and shed?

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IDEAL WEIGHT

SAMPLE ID: H048504

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

13 lbs - 23 lbs

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

CALCULATING WEIGHT

Our weight-predictive algorithm uses a combination of the following to calculate Pax'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 Pax having a long and healthy life.


ADDITIONAL BREED TESTS

Our family tree analysis shows that Pax closely resembles a single dog breed, based on the samples in the WISDOM PANEL™ database. We have included some extra tests free of charge to investigate this in more detail.


Single Breed Comparison

This analysis shows the relationship  between Pax and the Cavalier King Charles Spaniel samples in our database with each individual dog represented as a dot. The closer the dots on the chart the closer the genetic relationship. Pax's sample falls within the Cavalier King Charles Spaniel cluster showing that Pax's genetic profile closely resembles the other dogs from this breed in the Wisdom Panel database.

Single Breed Vs. All Breeds

Here we have compared Pax's data to  Cavalier King Charles Spaniel samples, and also a single representative sample from the other breeds in the WISDOM PANEL database. This is another way of showing that Pax's data is more like the Cavalier King Charles Spaniel than any other breed. Pax's sample falls within the Cavalier King Charles Spaniel cluster showing that Pax's genetic profile closely resembles the other dogs from this breed in the WISDOM PANEL database.

Homozygosity

Homozygosity is a measure of how many of  Pax's genetic markers are identical because the same version was passed down from both the mother and father. Purebred dogs tend to have a higher homozygosity score than most mixed breed dogs, and each breed within the WISDOM PANEL database has a specific range of scores. Pax's homozygosity score falls within the range for the Cavalier King Charles Spaniel samples found in the WISDOM PANEL database.

WISDOMTM PANEL



STATEMENT OF AUTHENTICATION

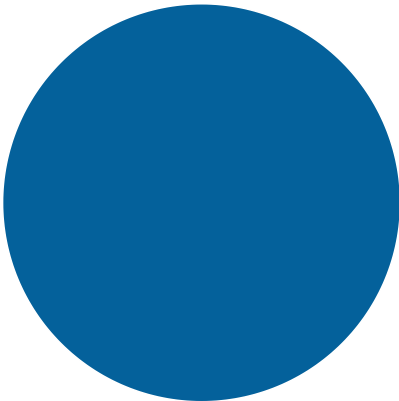
Owner's Name: **Anna Sceggel**

Dog's Name: **Pax**

Sample Id: **H048504**

Date: **October 10, 2020**

This certifies the authenticity of Pax'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 Pax's ancestry using the Wisdom Health proprietary breed detection algorithm.



● 100% Cavalier King Charles
Spaniel