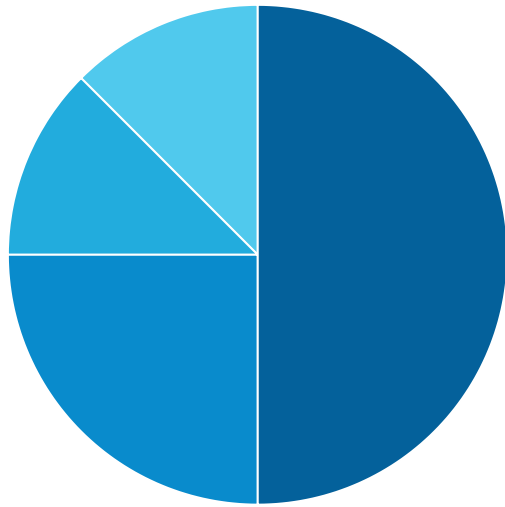


DISCOVER ALL
ABOUT OLIVER

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

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OLIVER'S BREED BY PERCENTAGE



● 50% Australian Cattle Dog

● 25% American
Staffordshire Terrier

● 12.5% Labrador Retriever

● 12.5% Breed Group(s)

- Herding

- Companion

- Terrier

- Guard

- Sporting

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

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.

AMERICAN STAFFORDSHIRE TERRIER

HARD-WORKING AND LOYAL DOGS.

- Intelligent, hard-working, and stoic dogs.
- Very loyal to family and usually good with children. May not get along well with other dogs.
- American Staffordshire Terriers seem to enjoy dog sports such as agility, flyball, rally and competitive obedience.
- The American Staffordshire Terrier 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

17 - 19 in

► Weight (show)

40 - 60 lb

► Weight (pet)

38 - 68 lb



DID YOU KNOW?

The American Staffordshire Terrier isn't originally from America. Instead, these hard-working loyal dogs have their roots in England. Back in the 19th century, various terriers were crossed with bulldogs, producing their ancestor - the English Staffordshire Terrier. As their modern, transatlantic cousin, the American Staffordshire Terrier is a very different animal, quite literally. In the US, they were specifically bred to be bigger and heavier - and used for dog fighting until it was eventually banned in the early 1900s. In 1936, the American Kennel Club officially recognized them as a breed. Today, we recognize them for their intelligent and extremely loyal natures.

LABRADOR RETRIEVER

GENTLE AND TRUSTING.

- Usually happy-go-lucky, calm, or easygoing dogs, though some may be energetic.
- Usually friendly and are generally good family dogs.
- Labrador Retrievers enjoy dog sports such as agility, hunting, tracking, rally and competitive obedience; retrieving and swimming.
- Quite food motivated, which may make it easier to teach the Labrador Retriever to drop retrieved items not intended for play.

► Height

21 - 24 in

► Weight (show)

55 - 66 lb

► Weight (pet)

49 - 77 lb



DID YOU KNOW?

Gentle and trusting, this popular breed can trace its roots to the coast of Newfoundland, Canada where, in the 17th century, they were known as the 'Lesser Newfoundland.' Labradors are thought to have descended from the now extinct 'St. John's Water Dog', and were initially trained to retrieve fishing nets from the cold waters of the North Atlantic. Tradition has it the Earl of Malmesbury first coined the name 'Labrador' in order to differentiate these dogs from their Newfoundland ancestors. It was English fishermen who originally brought the breed to England in the 19th century. There, they were much lauded for their retrieving skills. And much loved for their affectionate natures.

BREED GROUPS OLIVER IS MOST LIKELY RELATED TO

We tested Oliver'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 Oliver 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.

HERDING GROUP

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

COMPANION GROUP

This group consists of dogs typically bred for the specific purpose of human companionship, and many are popular pets because of their gentle nature. They became more common as the concept and luxury of dogs as pets prevailed.

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.

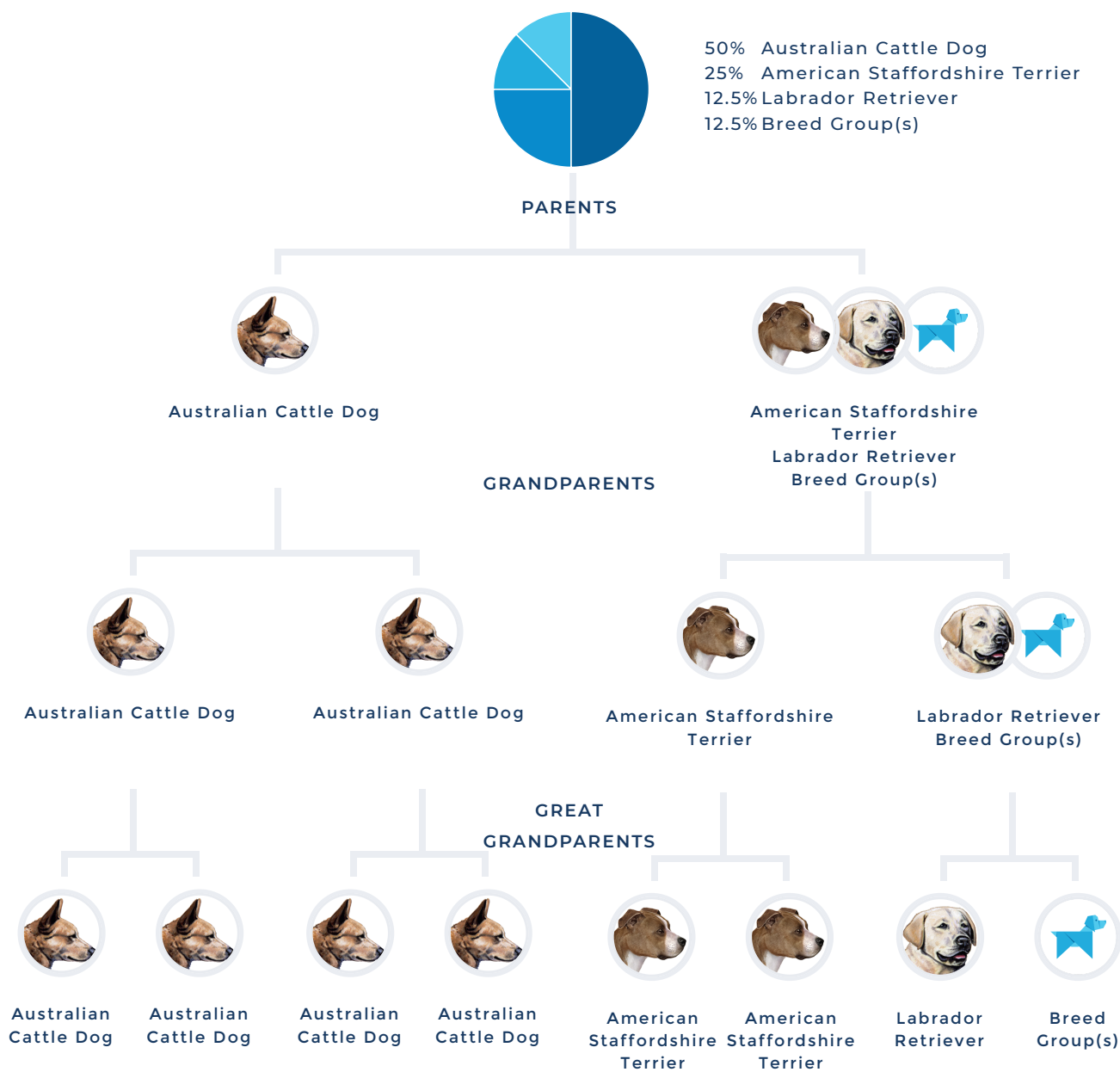
GUARD GROUP

Dogs of the Guard Group were bred to guard people and property. They are often quick to learn and these intelligent, capable animals make solid companions.

SPORTING GROUP

The sporting group breeds are incredibly diverse in personality and appearance, but can be characterized as very sturdy. They were developed to work closely with people and in general have a very responsive nature and high intelligence.

OLIVER'S FAMILY TREE



OLIVER'S HEALTH RESULTS

SAMPLE ID: T205005

We have tested Oliver'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)



CLEAR

Oliver has no copies of the MDR1 mutation and should not be affected by the disorder due to this genetic cause.

EXERCISE-INDUCED COLLAPSE (EIC)



CLEAR

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

OLIVER'S TRAITS

SAMPLE ID: T205005

Furnishings

Oliver 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 Main Possibilities
Genotype: ay/at E m/E ky/ky l/wt

Oliver probably has a coat color known as 'sable' - light overall, but with some dark-tipped patches of fur. They probably also have marking around the face that looks like a 'mask'. (It is very common for sable dogs to also carry the gene for a dark facial mask, but scientists still don't know what the link is.)

Coat Color Subtypes
Genotype: ay/at m/m h/h S/sp

Oliver carries one copy of the gene for white spotting so might have a fair bit of white in their coat. (Did you know white is not a color but a lack of pigment which acts to cover up a dog's natural base color?)

Leg Length
Genotype: DD

Oliver'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?

Tail Length
Genotype: CG

Oliver likely has a short tail, although the exact length can vary from dog to dog. Did you know that two copies of the gene for bobtail can cause negative health effects so even breeds that commonly carry the gene will still have longer tailed individuals?

Base Pigment Color
Genotype: B/bc

Oliver 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.

Ear Carriage
Genotype: CT

A lot of factors can decide the shape of a dog's ear. But as far as we can tell, Oliver probably has 'base erect' ears. This means the base of the ear stands up, while the tip flops over. Did you know a dog that has one parent with floppy ears and one parent with upright ears can have this kind of ear? It's also common in breeds like the American Staffordshire Terrier and Russell Terrier.

Coat Length and Type
Genotype: GT CT

Oliver's coat is probably on the short side. The exact length of a dog's coat is down to several factors so it can vary - but we do know {{PET_NAME}} also carries one copy of the gene for a curly coat. Did you know the curl isn't always obvious in a short coat? Or that that the curl gene is sometimes paired with a gene called 'furnishings' which gives a dog a fuzzy beard and eyebrows?

IDEAL WEIGHT

SAMPLE ID: T205005

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

43 lbs - 70 lbs

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

CALCULATING WEIGHT

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

WISDOMTM PANEL



STATEMENT OF AUTHENTICATION

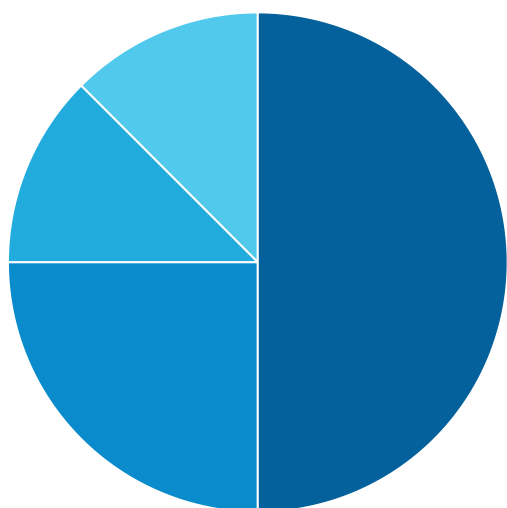
Owner's Name: Rod Allrich

Dog's Name: Oliver

Sample Id: T205005

Date: October 29, 2019

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



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