Back

embark

Her traits

Explore the genetics behind Rosie's appearance and size.

Base Coat Color

A number of genes are known to affect coat color in dogs. They all interact and in some cases other, often unknown, genetic effects may also influence color and pattern.

The base coat color genes are linked to whether your dog will have any dark fur at all and, if they do, whether that dark fur is black, brown, grey, or light brown.

Expand all

Dark or Light Fur

Light colored fur (cream to red)

Dark brown pigment

No impact on skin color

Red Pigment Intensity

Linkage Test

Any pigmented fur likely yellow or tan

Brown or Black Pigment

Likely black colored nose/feet

Color Dilution

Dark (non-dilute) skin

Coat Color Modifiers

A number of genes are known to affect coat color in dogs. They all interact and in some cases other, often unknown, genetic effects may also influence color and pattern.

The coat color modifier genes we test for explain the fur patterns in most dogs. We cannot yet test for some color patterns, for example, some kinds of spotting.

Expand all

Hidden Patterning

No impact on coat color

Body Pattern

No impact on coat pattern

Facial Fur Pattern

No dark fur anywhere

Saddle Tan

No impact on coat pattern

White Spotting

Likely to have some white areas in coat

Roan

Linkage Test

Likely no impact on coat pattern

Merle

No impact on coat color

Harlequin

No impact on coat pattern

Panda White Spotting

Not expected to display Panda pattern

Other Coat Traits

Furnishings, shedding, and curls are all genetic. Several genes are at work here, and they all interact. In fact, the combination of these genes explains the coat traits of 90 percent of AKC registered dog breeds.

Expand all

Furnishings

Linkage Test

Likely furnished (mustache, beard, and/or eyebrows)

Coat Length

Likely long coat

Shedding

Likely light shedding

Coat Texture

Likely curly coat

Hairlessness (Xolo type) Linkage Test

Very unlikely to be hairless

Hairlessness (Terrier type)

Very unlikely to be hairless

Oculocutaneous Albinism Type 2 Linkage Test

Likely not albino

Other Body Features

We are discovering the genetic basis for an increasing number of other body features, including hind dew claws and the shape of your dog's head. Take our surveys to help us make new discoveries.

Expand all

Muzzle Length

Likely medium or long muzzle

Tail Length

Likely normal-length tail

Hind Dew Claws

Unlikely to have hind dew claws

Back Muscling & Bulk (Large Breed)

Likely normal muscling

Eye Color

Linkage Test

Less likely to have blue eyes

Chondrodysplasia (Leg Length)

Likely to have normal leg length

Body Size

Body size is a complex trait that is affected by both genetic and environmental variation. Our genetic analysis includes genes that, together, explain over 85 percent of the variation in dog body size. Below are your dog's results for some of the most important size-related genes.

Expand all

Predicted Adult Weight

47 lbs

Body Size 1

Intermediate

Body Size 2

Larger

Body Size 3

Smaller

Body Size 4

Larger

Body Size 5

Larger

Performance

Physical performance traits are interesting for all dogs, especially those that want to perform in more strenuous environments. These traits also shed light on the history of dogs and what they have been bred for. For example, the high altitude mutation we test for causes similar changes in oxygen usage as a mutation found in people from the Himalayas!

Expand all

Altitude Adaptation

Normal altitude tolerance

Appetite

Linkage Test

Normal food motivation