



GENETIC STATS

Wolfiness: 0.8 % **MEDIUM**

Predicted adult weight: **25 lbs**

Genetic age: **17 human years**

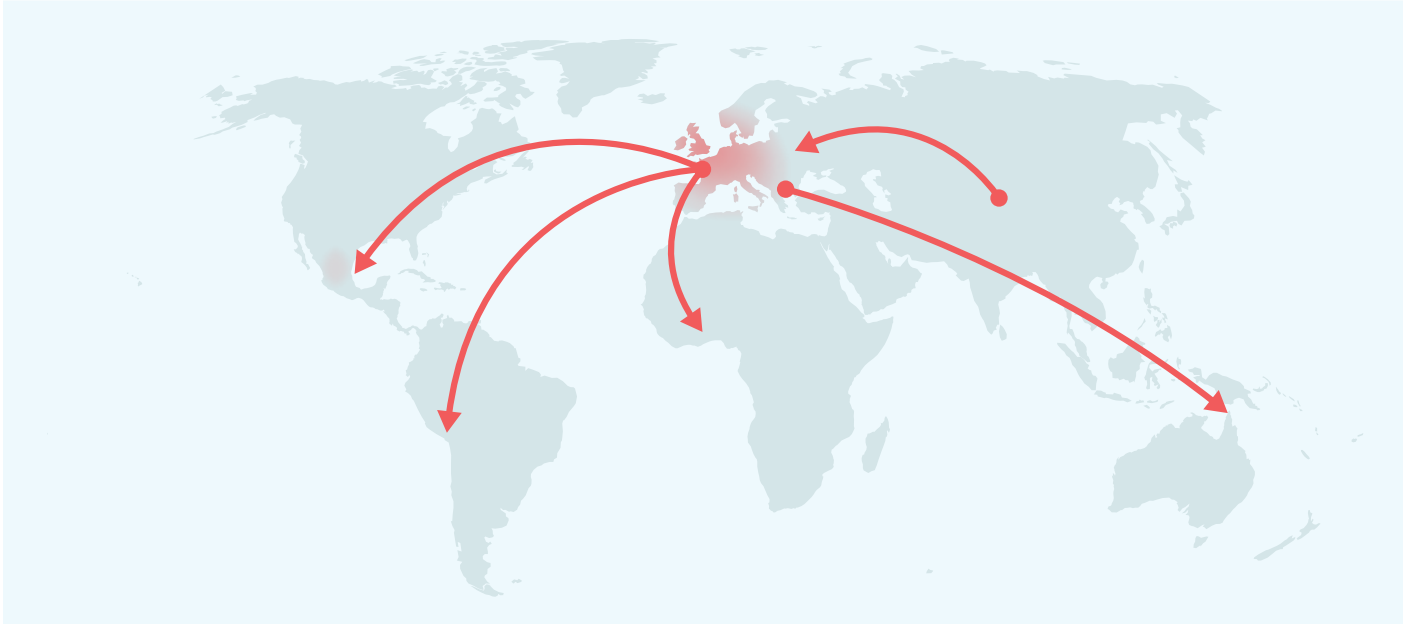
TEST DETAILS

Kit number: EM-2128899

Swab number:



MATERNAL LINE



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

HAPLOGROUP: A1b

This female lineage was very likely one of the original lineages in the wolves that were first domesticated into dogs in Central Asia about 15,000 years ago. Since then, the lineage has been very successful and travelled the globe! Dogs from this group are found in ancient Bronze Age fossils in the Middle East and southern Europe. By the end of the Bronze Age, it became exceedingly common in Europe. These dogs later became many of the dogs that started some of today's most popular breeds, like German Shepherds, Pugs, Whippets, English Sheepdogs and Miniature Schnauzers. During the period of European colonization, the lineage became even more widespread as European dogs followed their owners to far-flung places like South America and Oceania. It's now found in many popular breeds as well as village dogs across the world!

HAPLOTYPE: A18

Part of the large A1b haplogroup, we see this haplotype in village dogs in Central and South America, as well as French Polynesia. Among the breeds we have detected it in, this haplotype occurs most frequently in Chesapeake Bay Retrievers, Lhasa Apsos, and Pugs.



TRAITS

Coat Color

E Locus (Mask/Grizzle/Red)	E^mE^m
K Locus (Dominant Black)	K^{Bk}y
A Locus (Agouti)	a^ya^y
D Locus (Dilute)	DD
B Locus (Brown/Chocolate/Liver)	BB

Other Coat Traits

Furnishings / Improper Coat (RSPO2)	II
Long Haircoat (FGF5)	GG
Shedding (MC5R)	TT
Curly Coat (KRT71)	CC

Body Size

Body Size - IGF1	II
Body Size - IGF1R	GG
Body Size - STC2	TA
Body Size - GHR (E195K)	GG
Body Size - GHR (P177L)	CC

Genetic Diversity

Inbreeding Coefficient	13%
MHC Class II - DLA DRB1	High Diversity
MHC Class II - DLA DQA1 and DQB1	High Diversity

Other Body Features

Brachycephaly (BMP3)	AA
Natural Bobtail (T)	CC
Hind Dewclaws (LMBR1)	CC

Performance

Altitude Adaptation (EPAS1)	GG
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CLINICAL TRAITS

These clinical genetic traits can inform clinical decisions and diagnoses. These traits do not predict a disease state or increased risk for disease. We currently assess one clinical trait: Alanine Aminotransferase Activity.

Alanine Aminotransferase Activity result: Normal

Canes Gratia's Les Réaux has two normal alleles at ALT.

More information on Alanine Aminotransferase Activity:

Known to be highly expressed in liver cells, activity levels of alanine aminotransferase, or ALT, is a common value on most blood chemistry panels and is known to be a sensitive measure of liver health. Dogs with two ancestral G alleles show "normal" activity. Dogs that have one or two copies of the derived A allele may have lower resting levels of ALT activity, known as "low normal". If your dog's result is "low normal" then when a blood chemistry panel is being interpreted the values that you and your veterinarian consider "normal" may need to be adjusted. Please note that neither a "normal" nor a "low normal" result for this predicts a disease state or increased risk for liver disease. Moreover, this mutation does not associate with increased levels of ALT: If your dog has high ALT levels, please consult your veterinarian.



HEALTH

Good news! Canes Gratia's Les Réaux did not test positive for any of the genetic diseases that Embark screens for. Read on to learn more about the conditions we test for, but rest assured that Canes Gratia's Les Réaux does not have the mutations known to cause them.

It is still important to let your veterinarian know these results because they could help guide Canes Gratia's Les Réaux's diagnosis and treatment if she gets sick in the future. Many other diseases caused by environmental factors or undiscovered genetic variants can cause symptoms similar to diseases we test for. By ruling out these mutations, your veterinarian will be able to find the true cause more quickly. Your veterinarian will also know they can safely prescribe medications some dogs are sensitive to.

0
AT RISK

0
CARRIER

160
CLEAR



OTHER CONDITIONS

Good news! Canes Gratia's Les Réaux tested clear for 8 other common genetic diseases that Embark tests for.

- Multidrug Sensitivity (MDR1)
- Progressive Retinal Atrophy (PRA)
Progressive rod-cone degeneration (PRCD Exon 1)
- Hyperuricosuria and Hyperuricemia or Urolithiasis (SLC2A9)
- Dilated Cardiomyopathy (PDK4)
- Von Willebrand Disease Type II (VWF Exon 28)
- Primary Lens Luxation (ADAMTS17)
- Degenerative Myelopathy (SOD1A)
- Exercise-Induced Collapse (DNM1)

FULL TEST PANEL

To help ensure healthy breeds, every test includes analysis of our full panel of over 160 genetic diseases.

Canes Gratia's Les Réaux is also clear of 152 other genetic diseases that Embark tests for.