



OBSIDIAN'S ACCIPITER



DNA Test Report

Test Date: May 9th, 2018

embk.me/obsidiansaccipiter

GENETIC STATS

Wolfiness: 0.3 % **LOW**

Predicted adult weight: **55 lbs**

Genetic age: **59 human years**

TEST DETAILS

Kit number: EM-5401219

Swab number: 31001710121671

Registration: AKC DN30015201





OBSIDIAN'S ACCIPITER

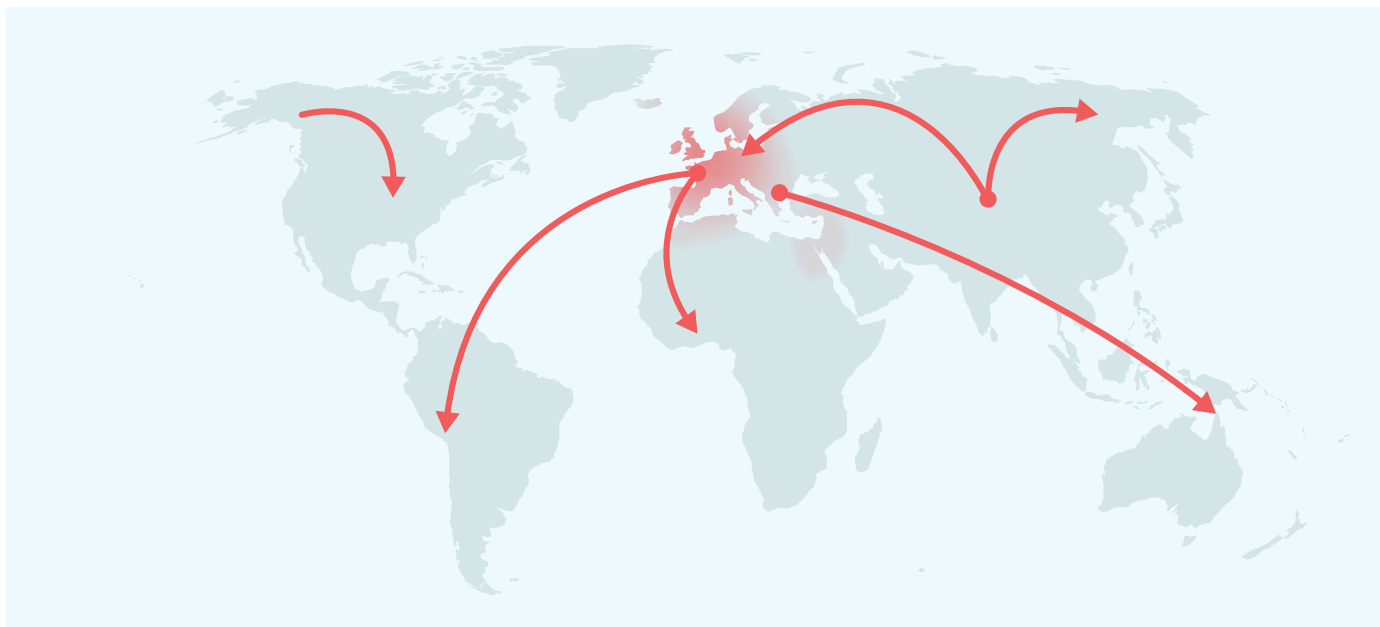


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MATERNAL LINE



Through Obsidian's Accipiter'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: A1e

This female lineage likely stems from some of the original Central Asian wolves that were domesticated into modern dogs starting about 15,000 years ago. It seemed to be a fairly rare dog line for most of dog history until the past 300 years, when the lineage seemed to "explode" out and spread quickly. What really separates this group from the pack is its presence in Alaskan village dogs and Samoyeds. It is possible that this was an indigenous lineage brought to the Americas from Siberia when people were first starting to make that trip themselves! We see this lineage pop up in overwhelming numbers of Irish Wolfhounds, and it also occurs frequently in popular large breeds like Bernese Mountain Dogs, Saint Bernards and Great Danes. Shetland Sheepdogs are also common members of this maternal line, and we see it a lot in Boxers, too. Though it may be all mixed up with European dogs thanks to recent breeding events, its origins in the Americas makes it a very exciting lineage for sure!

HAPLOTYPE: A226

Part of the large A1e haplogroup, we have spotted this haplotype in village dogs in Central and South America and Papua New Guinea. Among the 10 breeds we have detected it in, we see it most frequently in Border Collies, Doberman Pinschers, and Samoyeds.

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TRAITS

Coat Color

E Locus (Mask, Grizzle, Recessive Red)	EE
K Locus (Dominant Black)	K^{Bk}Y
A Locus (Agouti, Sable)	a^ta
D Locus (Dilute, Blue, Fawn)	DD
B Locus (Brown, Chocolate, Liver, Red)	BB

Other Coat Traits

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

Body Size

Body Size - IGF1	NN
Body Size - IGF1R	GG
Body Size - STC2	TT
Body Size - GHR (E195K)	GG
Body Size - GHR (P177L)	CC

Other Body Features

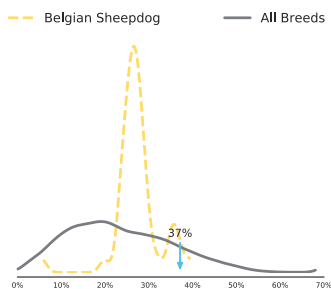
Brachycephaly (BMP3)	CC
Natural Bobtail (T)	CC
Hind Dewclaws (LMBR1)	CC

Performance

Altitude Adaptation (EPAS1)	GG
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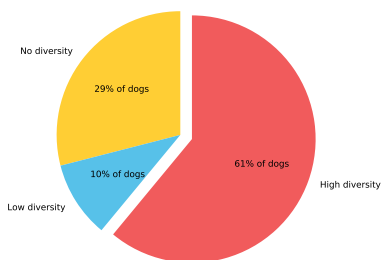
Genetic Diversity

Inbreeding Coefficient **37%**



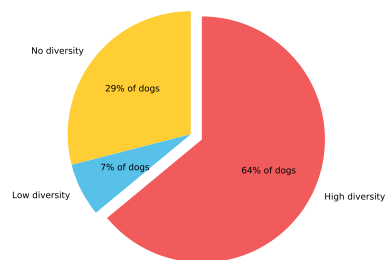
MHC Class II - DLA DRB1

High Diversity



MHC Class II - DLA DQA1 and DQB1

High Diversity



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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: Low Normal

Obsidian's Accipiter has one copy of a mutation associated with reduced ALT activity as measured on veterinary blood chemistry panels. Please inform your veterinarian that Obsidian's Accipiter has this genotype, as ALT is often used as an indicator of liver health and Obsidian's Accipiter is likely to have a lower than average resting ALT activity. As such, an increase in Obsidian's Accipiter's ALT activity could be evidence of liver damage, even if it is within normal limits by standard ALT reference ranges.

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.



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HEALTH

Good news! Obsidian's Accipiter did not test positive for any of the genetic diseases that Embark screens for.

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AT RISK

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CARRIER

Registration: AKC DN30015201





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OTHER CONDITIONS

Good news! Obsidian's Accipiter tested clear for 8 other common genetic diseases that Embark tests for.

- MDR1 Drug Sensitivity (MDR1)
- Progressive Retinal Atrophy - prcd
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)

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FULL TEST PANEL

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

Obsidian's Accipiter is also clear of 157 other genetic diseases that Embark tests for.

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