



UKC CH KENTRIDGE APACHESKY BOMBSHELL

DNA Test Report

Test Date: April 8th, 2018

embk.me/ukcchkentridgeapacheskybombshel

GENETIC STATS

Wolfiness: 1.7 % **HIGH**

Predicted adult weight: **37 lbs**

Genetic age: **28 human years**

TEST DETAILS

Kit number: EM-9849198

Swab number: 31001801023310



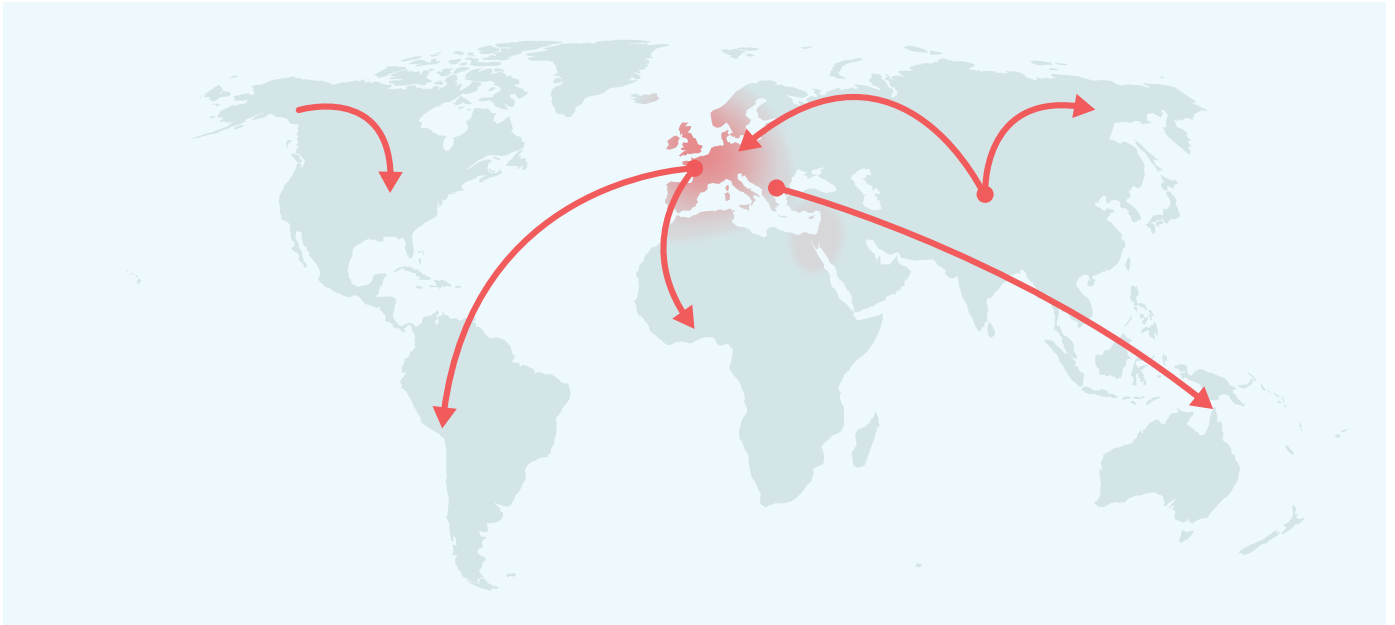
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MATERNAL LINE



Through UKC CH Kentridge ApacheSky Bombshell'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/Red)	EE
K Locus (Dominant Black)	k ^Y k ^Y
A Locus (Agouti)	a ^t a ^t
D Locus (Dilute)	Dd
B Locus (Brown/Chocolate/Liver)	Bb

Other Coat Traits

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

Other Body Features

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

Body Size

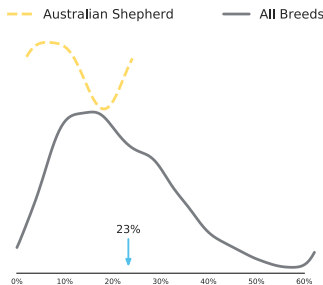
Body Size - IGF1	II
Body Size - IGF1R	GG
Body Size - STC2	AA
Body Size - GHR (E195K)	GG
Body Size - GHR (P177L)	CC

Performance

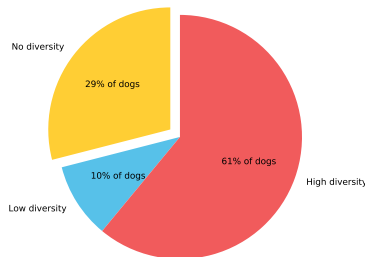
Altitude Adaptation (EPAS1)	GG
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Genetic Diversity

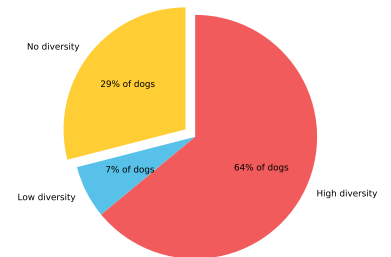
Inbreeding Coefficient **23%**



MHC Class II - DLA DRB1
No Diversity



MHC Class II - DLA DQA1 and DQB1
No 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

UKC CH Kentridge ApacheSky Bombshell has one copy of a mutation associated with reduced ALT activity as measured on veterinary blood chemistry panels. Please inform your veterinarian that UKC CH Kentridge ApacheSky Bombshell has this genotype, as ALT is often used as an indicator of liver health and UKC CH Kentridge ApacheSky Bombshell is likely to have a lower than average resting ALT activity. As such, an increase in UKC CH Kentridge ApacheSky Bombshell'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! UKC CH Kentridge ApacheSky Bombshell did not test positive for any of the genetic diseases that Embark screens for.

0
AT RISK

0
CARRIER



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OTHER CONDITIONS

Good news! UKC CH Kentridge ApacheSky Bombshell 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)



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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.

UKC CH Kentridge ApacheSky Bombshell is also clear of 157 other genetic diseases that Embark tests for.