Registration: 1132-02601646

Breed: Persian

Microchip Number: 7E10046133

DNA Test Report

Sample ID: KTBR03538 Test Date: 9/11/2020 Optimal Selection - Feline

Owner Info

First Name Susan Last Name

MacArthur

Pet Info

Registered Name

GC, RW Pelaqita Nothin But Trouble

Nickname (Call Name)

Mikey

Sex Male

Country of Origin

US

Owner Reported Breed

Persian

Date of Birth

2/16/2017

Sample ID

KTBR03538

Registration

1132-02601646

Microchip ID

7E10046133

Tattoo ID

N/A

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Genetic Diversity (Heterozygosity)

Mikey's Percentage of Heterozygosity

31%

Mikey's genome analysis shows an average level of genetic heterozygosity when compared with other Persians.

Typical Range for Persians

29 - 35%

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Health Conditions Known in This Breed

| Genetic Condition | Gene | Risk Variant | Copies | Result |
|-----------------------------------|------|--------------|--------|--------|
| Factor XII Deficiency (Variant 1) | F12 | Deletion | 0 | Clear |
| Polycystic Kidney Disease (PKD) | PKD1 | C>A | 0 | Clear |

Other Conditions Tested

| Genetic Condition | Gene | Risk Variant | Copies | Result |
|---|---------|--------------|--------|--------|
| Acute Intermittent Porphyria (Variant 1) | HMBS | Deletion | 0 | Clear |
| Acute Intermittent Porphyria (Variant 2) | HMBS | G>A | 0 | Clear |
| Acute Intermittent Porphyria (Variant 3) | HMBS | Insertion | 0 | Clear |
| Acute Intermittent Porphyria (Variant 4) | HMBS | Deletion | 0 | Clear |
| Autoimmune Lymphoproliferative Syndrome | FASL | Insertion | 0 | Clear |
| Burmese Head Defect (Discovered in the Burmese) | ALX1 | Deletion | 0 | Clear |
| Congenital Adrenal Hyperplasia | CYP11B1 | G>A | 0 | Clear |
| Congenital Erythropoietic Porphyria | UROS | G>A | 0 | Clear |
| Congenital Myasthenic Syndrome (Discovered in the Devon Rex and Sphynx) | COLQ | G>A | 0 | Clear |
| Cystinuria Type 1A | SCL3A1 | C>T | 0 | Clear |
| Cystinuria Type B (Variant 1) | SCL7A9 | C>T | 0 | Clear |
| Cystinuria Type B (Variant 2) | SCL7A9 | G>A | 0 | Clear |
| Dihydropyrimidinase Deficiency | DPYS | G>A | 0 | Clear |
| Earfold and Osteochondrodysplasia (Discovered in the Scottish Fold) | TRPV4 | G>T | 0 | Clear |
| Familial Episodic Hypokalemic Polymyopathy (Discovered in the Burmese) | WNK4 | C>T | 0 | Clear |
| Glycogen Storage Disease (Discovered in the Norwegian Forest Cat) | GBE1 | Insertion | 0 | Clear |
| GM1 Gangliosidosis | GLB1 | G>C | 0 | Clear |
| GM2 Gangliosidosis | GM2A | Deletion | 0 | Clear |

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Other Conditions Tested (continued)

| Genetic Condition | Gene | Risk Variant | Copies | Result |
|--|---------|--------------|--------|--------|
| GM2 Gangliosidosis Type II (Discovered in Domestic Shorthair cats) | HEXB | Insertion | 0 | Clear |
| GM2 Gangliosidosis Type II (Discovered in Japanese domestic cats) | HEXB | C>T | 0 | Clear |
| Hemophilia B (Variant 1) | F9 | C>T | 0 | Clear |
| Hemophilia B (Variant 2) | F9 | G>A | 0 | Clear |
| Hyperoxaluria Type II | GRHPR | G>A | 0 | Clear |
| Hypertrophic Cardiomyopathy (Discovered in the Maine Coon) | MYBPC | G>C | 0 | Clear |
| Hypertrophic Cardiomyopathy (Discovered in the Ragdoll) | MYBPC | C>T | 0 | Clear |
| Hypotrichosis (Discovered in the Birman) | FOXN1 | Deletion | 0 | Clear |
| Lipoprotein Lipase Deficiency | LPL | G>A | 0 | Clear |
| MDR1 Medication Sensitivity | ABCB1 | Deletion | 0 | Clear |
| Mucopolysaccharidosis Type I | IDUA | Deletion | 0 | Clear |
| Mucopolysaccharidosis Type VI | ARSB | T>C | 0 | Clear |
| Mucopolysaccharidosis Type VII (Variant 1) | GUSB | G>A | 0 | Clear |
| Mucopolysaccharidosis Type VII (Variant 2) | USB | C>T | 0 | Clear |
| Myotonia Congenita | CLCN1 | G>T | 0 | Clear |
| Progressive Retinal Atrophy (Discovered in the Abyssinian) | CEP290 | T>G | 0 | Clear |
| Progressive Retinal Atrophy (Discovered in the Bengal) | KIF3B | G>A | 0 | Clear |
| Sphingomyelinosis (Variant 1) | NPC1 | G>C | 0 | Clear |
| Sphingomyelinosis (Variant 2) | NPC2 | G>A | 0 | Clear |
| Vitamin D-Dependent Rickets | CYP27B1 | G>T | 0 | Clear |

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Blood Type

Blood Type Genotype
A A/A
(Most common)

Transfusion Risk Breeding Risk

Moderate

Mikey has the most common blood type. He can be transfused with Type A blood.

If breeding, Mikey has a low risk of blood type incompatibility with nursing kittens.

| Variant Tested | Description | Copies |
|----------------------------------|--------------------------------|--------|
| b variant 1 | (Common b variant) | 0 |
| b variant 2 | (Discovered in Turkish breeds) | 0 |
| b variant 3 | (Discovered in Ragdolls) | -1 |
| c variant - Causes AB Blood Type | (Discovered in Ragdolls) | 0 |

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Coat Color

| Genetic Trait | Gene | Variant | Copies | Result |
|--|------|---------------------|--------|-------------------------------------|
| Charcoal (Discovered in the Bengal) | ASIP | APb | 0 | No effect |
| Solid Color | ASIP | а | 0 | Banded hairs, tabby patterns likely |
| Partial and Full White | KIT | W or w ^s | 1 | Partly or fully white coat likely |
| Amber (Discovered in the Norwegian Forest Cat) | MC1R | е | 0 | No effect |
| Dilution | MLPH | d | 0 | No effect |
| Albinism (Discovered in Oriental breeds) | TYR | c ^a | 0 | No effect |
| Colorpoint (Discovered in the Burmese) | TYR | c ^b | 0 | No effect |
| Chocolate | TYRP | b | 0 | No effect |
| Cinnamon | TYRP | b | 0 | No effect |

Coat Type

| Genetic Trait | Gene | Variant | Copies | Result |
|---|-------|---------|--------|------------------|
| Long Hair (Discovered in many breeds) | FGF5 | M4 | 2 | Long coat likely |
| Long Hair (Discovered in the Norwegian Forest Cat) | FGF5 | M2 | 0 | No effect |
| Long Hair (Discovered in the Ragdoll) | FGF5 | M1 | 0 | No effect |
| Rexing (Discovered in the Cornish Rex and German Rex) | LPAR6 | r | 0 | No effect |

Tail Length

| Genetic Trait | Gene | Variant | Copies | Result |
|------------------------|------|----------|--------|-----------|
| Short Tail (Variant 3) | HES7 | jb | 0 | No effect |
| Short Tail (Variant 1) | Т | C1199del | 0 | No effect |
| Short Tail (Variant 2) | Т | T988del | 0 | No effect |

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Extra Toes

| Genetic Trait | Gene | Variant | Copies | Result |
|-------------------------|--------|---------|--------|-----------|
| Polydactyly (Variant 1) | LIMBR1 | HW | 0 | No effect |
| Polydactyly (Variant 2) | LIMBR1 | UK1 | 0 | No effect |
| Polydactyly (Variant 3) | LIMBR1 | UK2 | 0 | No effect |