

Jo March
Registration: SBT 051921 084
Breed: Ragdoll

Sample ID: FYWKJRN
Test Date: 6/15/2022
Optimal Selection - Feline

DNA Test Report

Owner Info

First Name

Dorothy Elizabeth

Last Name

Boatwright

Pet Info

Registered Name

Jo March

Date of Birth

5/19/2021

Nickname (Call Name)

Jo March

Sample ID

FYWKJRN

Sex

Female

Registration

SBT 051921 084

Country of Origin

US

Microchip ID

N/A

Owner Reported Breed

Ragdoll

Tattoo ID

N/A

DNA Test Report

Genetic Diversity (Heterozygosity)

Jo March's Percentage of Heterozygosity

32%

Jo March's genome analysis shows an average level of genetic heterozygosity when compared with other Ragdolls.

Typical Range for Ragdolls

32 - 37%

DNA Test Report

Health Conditions Known in This Breed

| Genetic Condition | Gene | Risk Variant | Copies | Result |
|---|-------|--------------|--------|--------|
| Factor XII Deficiency (Variant 1) | F12 | Deletion | 0 | Clear |
| Factor XII Deficiency (Variant 2) | F12 | Deletion | 0 | Clear |
| Hypertrophic Cardiomyopathy (Discovered in the Ragdoll) | MYBPC | C>T | 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 |
| Acute Intermittent Porphyria (Variant 5) | HMBS | G>A | 0 | Clear |
| Autoimmune Lymphoproliferative Syndrome | FASL | Insertion | 0 | Clear |
| Burmese Head Defect (Discovered in the Burmese) | ALX1 | Deletion | 0 | Clear |
| Chediak-Higashi Syndrome (Discovered in the Persian) | LYST | Insertion | 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 |
| Cystinuria Type B (Variant 3) | SCL7A9 | T>A | 0 | Clear |
| Dihydropyrimidinase Deficiency | DPYS | G>A | 0 | Clear |

DNA Test Report

Other Conditions Tested (continued)

| Genetic Condition | Gene | Risk Variant | Copies | Result |
|--|-------|--------------|--------|--------|
| 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 |
| Glutaric Aciduria Type II | ETFDH | T>G | 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 |
| 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 |
| GM2 Gangliosidosis Type II (Discovered in the Burmese) | HEXB | O>O | 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 |
| 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 VI Modifier | ARSB | G>A | 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 |

DNA Test Report

Other Conditions Tested (continued)

| Genetic Condition | Gene | Risk Variant | Copies | Result |
|--|---------|--------------|--------|--------|
| Progressive Retinal Atrophy (Discovered in the Abyssinian) | CEP290 | T>G | 0 | Clear |
| Progressive Retinal Atrophy (Discovered in the Bengal) | KIF3B | G>A | 0 | Clear |
| Progressive Retinal Atrophy (Discovered in the Persian) | AIPL1 | C>T | 0 | Clear |
| Pyruvate Kinase Deficiency | PKLR | G>A | 0 | Clear |
| Sphingomyelinosis (Variant 1) | NPC1 | G>C | 0 | Clear |
| Sphingomyelinosis (Variant 2) | NPC2 | G>A | 0 | Clear |
| Spinal Muscular Atrophy (Discovered in the Maine Coon) | LIX1 | Deletion | 0 | Clear |
| Vitamin D-Dependent Rickets | CYP27B1 | G>T | 0 | Clear |

DNA Test Report

Blood Type

Blood Type

A
(Most common)

Genotype

A/b
(Carrier for Blood Type B)

Transfusion Risk

Moderate

Jo March has the most common blood type. She can be transfused with Type A blood.

Breeding Risk

Low

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

Variant Tested

Description

Copies

b variant 1

(Common b variant)

1

b variant 2

(Discovered in Turkish breeds)

0

b variant 3

(Discovered in Ragdolls)

0

c variant - Causes AB Blood Type

(Discovered in Ragdolls)

0

DNA Test Report

Coat Color

| Genetic Trait | Gene | Variant | Copies | Result |
|--|------|---------------------|--------|--|
| Charcoal (Discovered in the Bengal) | ASIP | A ^{Pb} | 0 | No effect |
| Solid Color | ASIP | a | 2 | Solid color hairs likely |
| Gloving (Discovered in the Birman) | KIT | w ^g | 0 | No effect |
| Partial and Full White | KIT | W or w ^s | 2 | Partly or fully white coat likely |
| Amber (Discovered in the Norwegian Forest Cat) | MC1R | e | 0 | No effect |
| Russet (Discovered in the Burmese) | MC1R | e ^r | 0 | No effect |
| Dilution | MLPH | d | 1 | No effect |
| Albinism (Discovered in Oriental breeds) | TYR | c ^a | 0 | No effect |
| Colorpoint (Discovered in the Burmese) | TYR | c ^b | 0 | No effect |
| Colorpoint (Discovered in the Siamese) | TYR | c ^s | 2 | Siamese colorpoint pattern likely |
| Mocha (Discovered in the Burmese) | TYR | c ^m | 0 | No effect |
| Chocolate | TYRP | b | 0 | No effect |
| Cinnamon | TYRP | b ^l | 0 | No effect |

Coat Type

| Genetic Trait | Gene | Variant | Copies | Result |
|--|------|------------------|--------|--------------|
| Long Hair (Discovered in many breeds) | FGF5 | M4 | 0 | No effect |
| Long Hair (Discovered in the Norwegian Forest Cat) | FGF5 | M2 | 0 | No effect |
| Long Hair (Discovered in the Ragdoll and Maine Coon) | FGF5 | M3 | — | Inconclusive |
| Long Hair (Discovered in the Ragdoll) | FGF5 | M1 | 0 | No effect |
| Lykoi Coat (Variant 1) | HR | hr ^{Ca} | 0 | No effect |
| Lykoi Coat (Variant 2) | HR | hr ^{VA} | 0 | No effect |

DNA Test Report

Coat Type (continued)

| Genetic Trait | Gene | Variant | Copies | Result |
|---|---------|------------------|--------|-----------|
| Hairlessness (Discovered in the Sphynx) | KRT71 | re ^{hr} | 0 | No effect |
| Rexing (Discovered in the Devon Rex) | KRT71 | re ^{dr} | 0 | No effect |
| Rexing (Discovered in the Cornish Rex and German Rex) | LPAR6 | r | 0 | No effect |
| Glitter | Pending | gl | 0 | No effect |

Tail Length

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

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 |