

## Dog Information

**Delilah (Delilah)**  
NAME

**Female**  
SEX

**Golden Retriever**  
BREED ANCESTRY

**November 20th, 2021**  
DATE OF BIRTH

**American Kennel Club (AKC)**  
REGISTRATION

**n/a**  
MICROCHIP

**Laurel McComas**  
OWNER NAME

**Canine Genetic Health Screen**  
TEST

**March 22nd, 2022**  
TEST DATE

## BREED HEALTH TESTS

| DISEASE   | GENE                   | GENOTYPE     | RESULT    | TESTING RECOMMENDED BY |
|---|------------------------|--------------|-----------|------------------------|
| Degenerative Myelopathy, DM                             | SOD1A                  | GG           | Clear     |                        |
| Golden Retriever Progressive Retinal Atrophy 1, GR-PRA1 | SLC4A3 Exon 16         | NN           | Clear     |                        |
| Golden Retriever Progressive Retinal Atrophy 2, GR-PRA2 | TTC8 Exon 8            | NN           | Clear     |                        |
| Ichthyosis, ICH1  | PNPLA1 (Exon 8)        | ACC/TACTACTA | 1 Variant |                        |
| Muscular Dystrophy                                      | DMD                    | AA           | Clear     |                        |
| Progressive Retinal Atrophy, prcd                       | PRCD Exon 1            | GG           | Clear     |                        |
| Congenital Myasthenic Syndrome, CMS                     | COLQ                   | GG           | Clear     |                        |
| Dystrophic Epidermolysis Bullosa                        | COL7A1 (Exon 68)       | GG           | Clear     |                        |
| Neuronal Ceroid Lipofuscinosis 5, NCL 5                 | CLN5 (Exon 4 Deletion) | NN           | Clear     |                        |
| Osteogenesis Imperfecta, Brittle Bone Disease           | COL1A1 (Exon 18)       | GG           | Clear     |                        |

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## INBREEDING AND DIVERSITY

| Genetic Diversity                | RESULT | GENETIC RESULT |
|----------------------------------|--------|----------------|
| Coefficient Of Inbreeding        |        | 15%            |
| MHC Class II - DLA DRB1          |        | High Diversity |
| MHC Class II - DLA DQA1 and DQB1 |        | High Diversity |

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## TRAIT TESTS (1/3)

| Coat Color                     | RESULT                                    | GENETIC RESULT                |
|--------------------------------|---|-------------------------------|
| <b>E Locus (MC1R)</b>          | No dark hairs anywhere                    | ee                            |
| <b>K Locus (CBD103)</b>        | Not expressed                             | $K^B k^Y$                     |
| <b>Intensity Loci LINKAGE</b>  | Any pigmented hair likely yellow or tan   | Intermediate Red Pigmentation |
| <b>A Locus (ASIP)</b>          | Not expressed                             | $a^t a$                       |
| <b>D Locus (MLPH)</b>          | Not expressed                             | DD                            |
| <b>Cocoa (HPS3)</b>            | No co alleles, not expressed              | NN                            |
| <b>B Locus (TYRP1)</b>         | Likely black colored nose/feet            | BB                            |
| <b>Saddle Tan (RALY)</b>       | Not expressed                             | NI                            |
| <b>S Locus (MITF)</b>          | Likely to have little to no white in coat | SS                            |
| <b>M Locus (PMEL)</b>          | No merle alleles                          | mm                            |
| <b>R Locus (USH2A) LINKAGE</b> | Likely no impact on coat pattern          | rr                            |

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## TRAIT TESTS (2/3)

| Coat Color                                       | RESULT   | GENETIC RESULT |
|--|--|----------------|
| H Locus (Harlequin)                              | No harlequin alleles                                     | hh             |
| Other Coat Traits                                | RESULT   | GENETIC RESULT |
| Furnishings (RSPO2) LINKAGE                      | Likely unfurnished (no mustache, beard, and/or eyebrows) | II             |
| Coat Length (FGF5)                               | Likely long coat   | TT             |
| Shedding (MC5R)                                  | Likely heavy/seasonal shedding                           | CT             |
| Hairlessness (FOXI3) LINKAGE                     | Very unlikely to be hairless                             | NN             |
| Hairlessness (SGK3)                              | Very unlikely to be hairless                             | NN             |
| Oculocutaneous Albinism Type 2 (SLC45A2) LINKAGE | Likely not albino  | NN             |
| Coat Texture (KRT71)                             | Likely straight coat                                     | CC             |
| Other Body Features                              | RESULT   | GENETIC RESULT |
| Muzzle Length (BMP3)                             | Likely medium or long muzzle                             | CC             |
| Tail Length (T)                                  | Likely normal-length tail                                | CC             |
| Hind Dewclaws (LMBR1)                            | Unlikely to have hind dew claws                          | CC             |

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## TRAIT TESTS (3/3)

| Other Body Features                       | RESULT                        | GENETIC RESULT |
|---|-------------------------------|----------------|
| Blue Eye Color (ALX4) LINKAGE             | Less likely to have blue eyes | NN             |
| Back Muscling & Bulk, Large Breed (ACSL4) | Likely normal muscling        | CC             |
| Body Size                                 | RESULT                        | GENETIC RESULT |
| Body Size (IGF1)                          | Intermediate                  | NI             |
| Body Size (IGFR1)                         | Larger                        | GG             |
| Body Size (STC2)                          | Larger                        | TT             |
| Body Size (GHR - E191K)                   | Larger                        | GG             |
| Body Size (GHR - P177L)                   | Larger                        | CC             |
| Performance                               | RESULT                        | GENETIC RESULT |
| Altitude Adaptation (EPAS1)               | Normal altitude tolerance     | GG             |
| Appetite (POMC) LINKAGE                   | Normal food motivation        | NN             |